ROCKY MOUNTAIN MEDICAL JOURNAL

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September 1959, Volume 56, Number 9

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A medical potpourri

Compiled by Andrew M. Babey, M.D., Las Cruces, New Mexico

1. "Peripheral neuropathy and carcinoma of the bronchus would seem at first sight to make uneasy bedfellows, but their association has been proved to be real beyond doubt. . . . The first manifestation of carcinoma may precede, coincide with, or follow the neurological signs. The tumor is often situated peripherally and its size bears no relation to the degree of neuropathy." Peripheral Neuropathy and the Lungs, Brit. M.J. **2**:1457-1458 (Dec. 13) 1958.

2. "Sudden endolymphatic hydrops of the labyrinth in Meniere's Disease may be likened to the sudden increased intraocular tension encountered in glaucoma. They both eventually lead to destruction of the end organs. The etiology of both conditions is most often obscure." Quoted from lecture by Dr. Arthur Fischer on Jan. 7, 1959, in Las Cruces, New Mexico.

3. "The ionised-calcium level was always raised in patients with functioning parathyroid adenomas, and when the adenoma was removed the level fell. The corresponding changes in the protein-bound calcium were variable, and in four of the patients the protein-bound calcium actually increased after operation. The important and unexpected findings were in two patients who before operation had normal values for the total calcium, the proteins, and the pH in the plasma, but in whom the ionised calcium was nevertheless raised. . . . It seems likely that the separate determination of the ionised calcium will reveal yet more cases of hyperparathyroidism in patients with renal stones, and that it will disclose cases among patients thought to have idiopathic hypercalcuria." Lancet, The Diagnosis of Hyperparathyroidism, **2**:1267 (Dec. 13) 1958.

4. "Clearly a passion for mensuration can be overdone, as the following charming quotation from R. E. Dickinson (1958) attests: 'Lord Kelvin said that we can know nothing of a matter unless we can measure it. Psychologists braced with their success in giving numerical values to I.Q. are now hoping to measure feminine beauty in precise units. The unit proposed is the milli-helen, the quantity of beauty required to launch exactly one ship.' " Atkins, H. J. B.: The Three Pillars of Clinical Research, Brit. M.J. **2**:1550 (Dec. 27) 1958.

5. "There is no conclusive evidence that thyrotoxicosis alone produces exophthalmos, and there is now little evidence that the thyrotrophic hormone, at any rate acting alone, is responsible for it. We should be wise to be content with the term 'endocrine exophthalmos' until we know more about it." Brain, Sir Russel: Pathogenesis and Treatment of Endocrine Exophthalmos, Brit. M.J. **1**:113 (Jan. 17) 1958.

6. "Nothing is so calculated to mislead in diagnosis as the attitude so prevalent today that pain in the chest, especially if identified with effort, is angina." Evans, William: Faults in the Diagnosis and Management of Cardiac Pain, Brit. M.J. **1**:249 (Jan. 31) 1959.

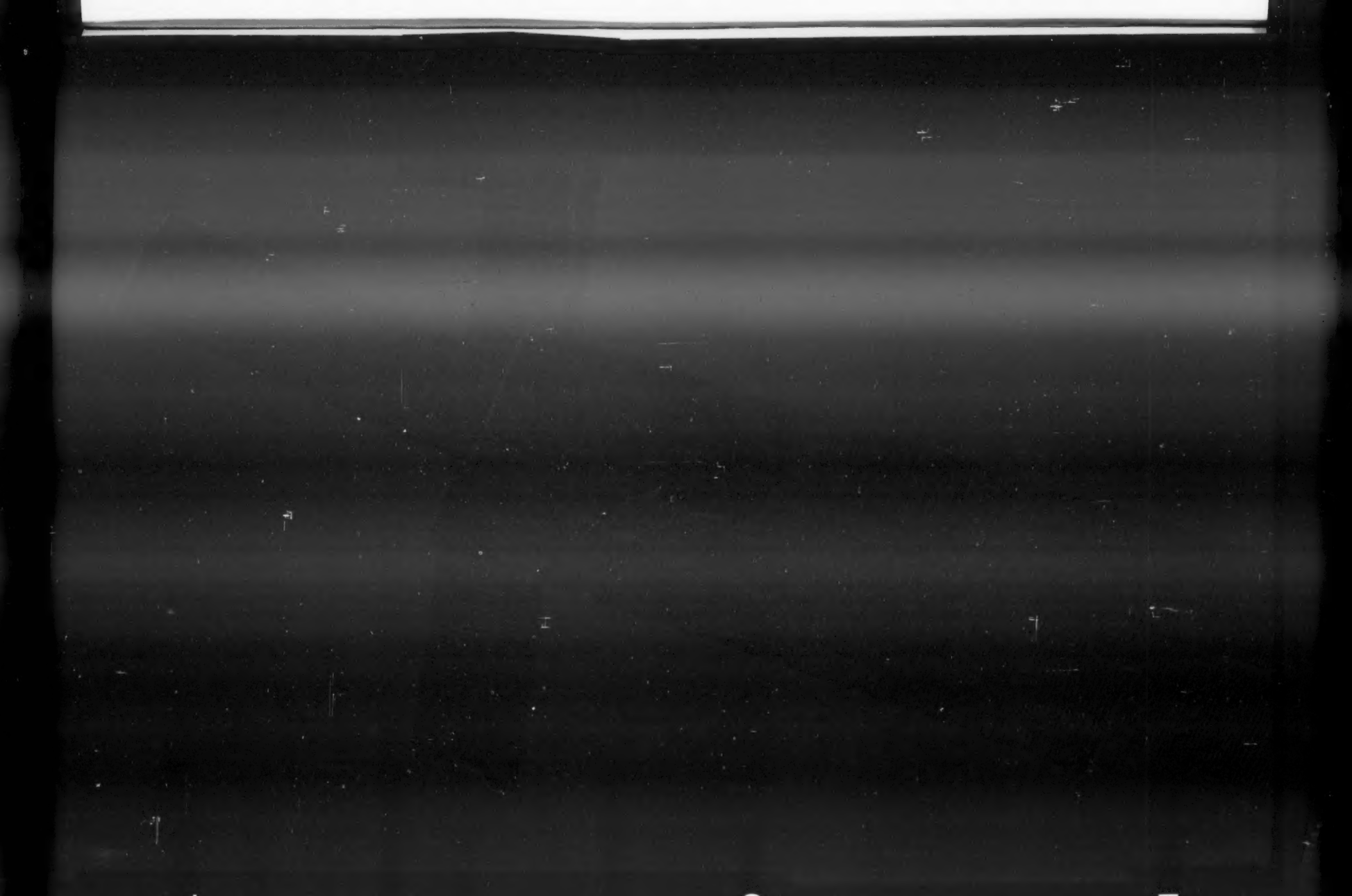
7. "A nitrite, like 'peritrate' or 'mycardol,' taken into the stomach was shown a quarter of a century ago to be no more effective than a placebo in the prevention of cardiac pain, while a critical regard of the state of the coronary arteries and the myocardium at necropsy relegates treatment by anticoagulant drugs to the realm of 'therapeusis through wishful thinking.' " Ibid., page 253.

8. "There is increasing evidence that individuals who have neoplastic diseases sometimes have the clinical picture of hyperparathyroidism . . . certain neoplasms seem to be capable of producing a material (which has not been isolated to my knowledge) which acts like parathormone." Myers, J. D.: Clinical Pathological Conference, Rocky Mountain M.J. **56**:56 (Feb.) 1959.

9. "One can reduce the blood pressure of patients with pheochromocytoma with ganglion-blocking drugs and the fact that a patient has responded to Inversine or Hexamethonium does not rule out the possibility that he has a pheochromocytoma." Rosenheim, M. L., and Dock, W.: Essential Hypertension, Medical Times **87**:46-54 (Jan.) 1959.

10. "There is no doubt but that one can get a false

continued on page 74



EDITORIALS

A GEM OF A COLUMN appears in the August 8, 1959, issue of The Rocky Mountain Herald under the nom de plume of Thomas Hornsby Ferril, reviewing with deadly seriousness while joshing in the overtones of a trout fisherman the medico-philosophical paper recently published under this same title. Our too-many welfare staters, unfortunately including a few physicians, might do well to read the entire paper. It is with pleasure that we reprint Mr. Ferrill's column in its entirety:

"Rats, Man, and The Welfare State"

Last Saturday I got hungry on the upper Blue and cooked two trout on a willow fork. I felt aboriginal. It put me in mind of a recent paper, "Rats, Man, and the Welfare State" by my old friend of Whittier and East Denver High School days, Dr. Curt Richter of Johns Hopkins. Curt opens this paper with a description of some very healthy Australian aborigines who have no clothes, no permanent shelter, little sense of the meaning of fire and spend their days in search of food, frogs, grubs, roots, berries, etc., which they eat on the spot.

I wasn't quite this primitive although, in addition to the trout, I did eat three wild raspberries, and I about matched the Australian native on making little use of fire. My matches were wet and my cigarette lighter was most uncooperative. It finally came through, so I didn't have to eat the trout raw.

But getting back to Curt Richter's paper, we moderns are so avidiously concerned with what the welfare state can do for us that we give little heed to what it is doing to us. The easier life becomes the more quirks pop up in our innards. Even today, measured in horsepower, a statistical American has the equivalent of 100 slaves working for him. If the glorious utopia ever arrives when the entire population can have breakfast in bed, many will have to stay in bed and many will have no appetite for breakfast.

Curt Richter summarizes six categories of diseases that appear to be increasing. At this time they are called noncurable diseases. The question arises: is there any casual relationship between these two phenomena, the development of the welfare state and the increased incidence of various noncurable diseases and other evidences of defective physical and mental health?

The Norway rat, our historic enemy and, as humble co-worker in science, one of our greatest benefactors, is throwing some interesting light on this question.

For many years, prior to the war, Dr. Richter had been working with Norway rats in his laboratory at Johns Hopkins. During the war he headed a program for quick destruction of wild rats in event they were used in germ warfare. So he became pretty well acquainted with both domesticated and wild rats.

In about two centuries the Norway rat has spread all over the world. It is a very interesting critter, especially in that it does not mate with other rats with which it often shares the same dwellings and areas.

Dr. Richter's colony of domesticated Norway rats has been in existence for more than 36 years. These rats are tame. They don't have to work for their food. Practically everything needed for their survival is done for them by employees of the laboratory. Compared with the wild rat, these coddled fellows live in rathood's welfare state.

Since 1943 Dr. Richter and his colleagues have been studying the differences between wild and tame Norway rats. There are differences in appearance. The wild rats are inclined to weigh more. Some organs and glands become smaller under domestication. The tame rats are subject to certain fits and convulsions not found in the wild ones. Reproduction in the domesticated females begins earlier and they are more fertile at all ages. Tame rats are easier to poison than wild ones; they are also more susceptible to

various diseases. The domestics are less suspicious, more tractable, are less inclined to fight and show much less tendency to escape.

Dr. Richter cites other differences between the wild and domesticated rats and asks to what extent has civilization brought about parallel changes in men?

Pioneer Americans are not available for comparison with us but indirect evidence indicates that some glandular changes paralleling those of the domesticated rat are progressively taking place in us. Our brilliant success in developing substances that give stop-gap relief to ailments attributable to endocrine upsets is good evidence that some of these defects are becoming established. Moreover, our deficiencies may show up in our progency, and theirs and theirs. Curiously, natural selection, popularly misunderstood to imply survival of the fittest as survival of the strongest, may not perpetuate the strongest.

Curt Richter pleads for wider recognition of how these things work. He suggests a commission of physicians, biologists, psychologists, sociologists—well versed in genetics, to advise our legislators and other men of action about the possible biological effects of laws and rulings on future generations.

It's a fascinating subject. Coming home from my fishing junket as I crossed the mountains, I couldn't help speculating on what Jim Bridger or Kit Carson, could they have been living now, would have thought of me and my kind, racing helter-skelter over pass and valley, everybody sitting down? What had become of the stout fellows who walked from Fort Laramie to Santa Fe? Where were the trappers who only ate when they were hungry?

These frontiersmen came from large families. Children died like flies. Mothers perished. Men remarried. A typical frontiersman had at least three wives consecutively; the Mormons worked out a multiple concurrence that may have worked better. But a century ago survival of the fittest did not imply perpetuation of weakness. The welfare state was not dreamed of.

Dr. Richter's correctional idea may have merit. The difficulty lies in moral, religious and political miscarriage.

Ileostomy Self-Help Group

LIFE FOR THE ILEOSTOMY PATIENT can be much improved through information and encouragement obtained by contact with others who have overcome the problems themselves. For many years, a patient-self-help organization named "Q-T" has functioned on the eastern seaboard. From this dedicated group, newcomers to the "ileostomy club" have found solutions to the practical problems of living with an ileac stoma, improvements in appliances have been developed and positive psychologic support has been obtained.

Patients in this geographic area need similar help from each other. An experienced member of such a club, Mr. James Wyatt of 910 Ursula, Aurora, Colorado, himself an ileostomy patient, would like to start a Denver chapter. Doctors with such patients would render them a service by putting them in contact with Mr. Wyatt.

Marshall A. Freedman, M.D.

Charge for Phone Inquiries

A REGIONAL PAPER RECENTLY PUBLISHED a report emanating from The American Medical Association which has stated that some physicians charge $1.00 each for telephone calls. The objection apparently is to discourage unnecessary inquiries and to provide additional income. The A.M.A. suggests that physicians who have invoked this practice should determine how many patients are neglected because of it, how many avoid personal office calls while being treated by proxy. It is obvious that the A.M.A. does not approve of charges for phone calls, but states that home and office visits should be gauged to compensate for telephone conversations, reports, and insurance forms.

One of our colleagues has composed the following statement placed upon his bulletin board accessible to patients:

In support of my practice of sometimes charging for telephone calls and in rebuttal to the unsympathetic tone of the accompanying article I would like to make the following statement. During the month of July, when I saw 15-20 patients per day, I charged ten families $1 for phone

calls. Here they are—a typical assortment:

Teething medicine
Burn ointment
Diarrhea medicine
Cement burn ointment
Pills for sinus headache
Ointment for pink-eye
Pills, doses based on weight, for family of four (pinworms)
Sleeping pills
Poison ivy lotion
Hay fever pills

I do not charge you for prescriptions connected with a recent office call or for simple refills. I do not charge for inquiries where information or reassurance is all that's needed.

Phone calls interrupt office visits an average of two times per patient, as you well know if you've had to sit and wait for me to finish such phone calls. I answer the phone personally at least 30 times per day. Not all of these are directly from patients, but nearly all concern patients.

I usually charge you only when the phone inquiry requires a phoned-in prescription. The two calls may total 3 to 10 minutes in time and include directions to you and to the druggist. Then the same information is recorded in my notebook, and later on your chart. The charge is recorded in the day book, on the file card, and at the end of the month on the bill. This last requires paper, envelope, and a 4¢ stamp plus the secretary's time. In addition, for the $1, I have taken the responsibility for your care, even though I have not seen you. You will have to judge for yourself whether the call was worth $1 to you (and please don't credit me with the druggist bill). But if anyone thinks I have made a profit on the $1 charge—he's crazy!

The Colorado State Medical Society has stated that it is not a general practice in Colorado to charge for telephone calls. So far as we know, this applies to our regional sister states. It is probable that charging for telephone calls will harm our public relations. The profession is already under critical scrutiny and damaging fire. It is needless here to reiterate that individual phyicians enjoy the confidence and affection of patients, but our profession as such has endured bitter criticism. A number of obvious truths are stated in the above bulletin. However, what business or profession does not have essential and unavoidable footwork? It is unthinkable that we should be an exception in this respect. Parents, friends, other relatives, and patients themselves will ask many questions; many of these will seem unnecessary and foolish to us. But no detail is unimportant to these people. Place yourself in their position, Doctor, and don't forget the Golden Rule!

Our colleague has listed ten typical topics upon which he was questioned. At $1.00 each, that's $10.00. After taxes it is less than $10.00. After defending one or more of the charges, and after one or several damaging thoughts and comments behind his back and emanating therefrom—we ask you, is it worth the effort? Perhaps not. Let us contribute each our share to good public relations and take this telephone footwork as part of our job. Those among us who don't like it possibly just don't like people—and maybe they simply picked the wrong vocation!

Is Consultation a Lost Art?

An EDITORIAL entitled "The Art of Consultation" appeared in the June, 1959, Archives of Internal Medicine. It casts thoughtful, but not new, light upon an old subject. The "manners" of consultation comprise serious business. We all know, but may have forgotten, etiquette of consultation — that both or all physicians concerned should be present, punctual, and pleased seriously to deliberate the problem. Each participates, and together they withdraw for discussion, then return to convey unhurriedly the results of their deliberations.

The editorial comments upon another form of consultation now in vogue, the presentation of the patient before a group or conference. We have tumor boards, chest conferences, surgical conferences, to mention but a few. Intimate and personal touch with the patient is thereby dispelled. Though desirable and perhaps necessary in the process of teaching, sounder results often follow with one or two carefully selected consultants. A thoughtful patient feels more confident with this more precise approach—and he will feel more like a patient and less like a case.

As Hercule Poirot used to say, "It gives one seriously to think." Most of us fall down occasionally if judged by the basic protocol described. The usual consultation upon which we are invited has been mentioned previously to the patient and the necessity for it explained. We "drop in" at our convenience (if not an emergency), introduce ourselves

by saying, "Mrs. Jones, I'm Dr. A.; Dr. B explained your problem to me and asked me to come by to see you." After consultation the patient is usually granted the courtesy of being told briefly the results, and the full report is written on the chart. Later a letter is sent to Dr. A.'s office for his files with a thank you appended.

Is this wrong? What do most of our readers do? Have you any "gimmicks" of which you are especially fond? Or do you agree with Dr. Bloomfield that consultation is a lost art?

*Many Unhappy Returns**

LIKE PROVIDENCE, the U. S. Treasury giveth and the U. S. Treasury taketh away. This month it taketh away—even more than usual. It is especially rough on those who receive what is charitably labeled earned income. One fares better "in oil" or by chiseling out some capital gains.

Sitting even prettier are those with unlimited expense accounts or tax-exempt investments although the best "out" is to set up a non-profit organization and forget about taxes. However, when the untaxed begin to outnumber the taxed, it means trouble because the latter tend to lose their zip and to experience a sharp rise in mortality. Eventually diminishing returns diminish to a point of No Return.

Of course, politicians have a solution of sorts based on the discovery that governments can spend not only what they take in but what they don't take in. Since the latter is limitless, governmental spending always tends to approach infinity. This gimmick is known as deficit financing. In the economics books it is also called Inflation.

In spite of which, the revenuers and their bloodhounds continue bleeding the citizenry although, sensing that the paying customers are getting restive, they have programmed some snappy sales talks on taxes. TV entertainers declaim that paying taxes is a patriotic privilege and that nowhere else on earth can this privilege be exercised so unreservedly. Now we defer to no one in patriotism and willingness to pay taxes but it irks us to hear sleek mercenaries (obviously feeling no pain) read canned commercials on the joys of so doing.

One expiring taxpayer, having given his all, gained immortality with the quip that the only sure things in this world are death and taxes. We might add that one cannot escape the latter by resorting to the former. The tax collector pursues us just as inexorably in the grave as in life—and with less likelihood of an argument. The original American Dream of a tax-free Cornucopia is long since gone where the woodbine twineth.

Oh, ashes to ashes, dust to dust,
If the Federals don't get you, the Locals must.

*Thanks again to our friend, Herbert A. Leggett, in Arizona Progress.

Our Triumph in Western Medical Journalism

THIS IS THE LARGEST ISSUE of the Rocky Mountain Medical Journal ever published. Its scientific section alone occupies more pages than many entire issues of its predecessor, *Colorado Medicine*; the advertising occupies more space than many representative Rocky Mountain Medical Journals of the past decade. Medical advertising has become a major industry and a fine art. Multi-paged single advertisements with many in color, plus modernized format of the scientific fare, are producing journals inviting to see and a joy to read.

With a larger Journal in the offing, permit us to renew our perennial plea for scientific articles. Much fine educational material is missed when speakers at our component Society meetings deliver "off the cuff" and from slides without a manuscript. Please be alert for good material, compliment your speakers and urge them to prepare a paper and submit it to your secretary during the meeting. When papers particularly appeal to you, ask for reprints. This is *your* Journal. Read it faithfully and, also, participate in its production. Write up your rare and instructive cases and record your studies, research, and experiences. Incidentally, it will be good for all of us and you will derive more benefit than anyone else. And, finally, patronize our advertisers!

A hearing testing program for preschool children

Marion Downs, M.A., and Mildred E. Doster, M.D.,* Denver

The incidence of deafness among preschool and school children is higher than generally suspected. Case finding of hearing defects should be given comparable attention to that which is directed toward defective eyesight. Here is a representative project in one of our major public school systems. It may comprise an inspiration and example for other communities to follow.

A MASS SCREENING PROGRAM to detect hearing losses in preschool children has been established on a firm basis in the Denver Public Schools. It is believed that this program represents the first large-scale hearing screening of children between the ages of 3 and 5 in the United States. Although technics are still being perfected, all those connected with the program agree that it has demonstrated an effective case-finding procedure for hearing loss in this age group.

The technic, as described in a pilot study reported in the Journal of School Health, March, 1956, consists of the presentation of familiar sounds which have been filtered into designated band widths, 250-750 cycles per second (cps), 1,000-2,000 cps., and 3,000-5,000 cps. The child is oriented to point to pictures representing the sounds he hears at a loud level, and then given a test presentation at a 15 decibel (db) level. Inability to identify any of the sounds in either ear constitutes a failure, and the child is rechecked and then scheduled for a threshold audiogram.

The program has been a cooperative project of several Denver agencies. The test was developed by the University of Denver Audiology Department at the suggestion of the Health Service Department of the Denver Public Schools. This was offered routinely each of the last two years to the 2,000-2,500 children in the Parent Education and Preschool Department of the Denver Public Schools. The testing procedure is carried out by volunteers of the Junior League of Denver, with about 30 members devoting many days a week during the year to the project. The contribution of their time by these interested and capable young women is a great factor making for the success of the program, and cannot be over-emphasized. A very important factor for efficient testing is the preparation of the children to "play the game" and identify the common sounds. This has been done by the parent education and preschool teachers and parents who plan toward the testing procedure with the chil-

*Mrs. Downs, Director of Audiology at the University of Colorado School of Medicine and the chief author of this report, was Director of the Hearing Center at the University of Denver when this program was done. Dr. Doster is Assistant Director, Health Service Department, Denver Public Schools. These authors gratefully acknowledge the cooperation and assistance of Leland M. Corliss, M.D., Director of the Health Service Department, Denver Public Schools; Elizabeth Kalio, Ph.D., Executive Secretary of the Denver Hearing Society; Mrs. Lois Humphrey, Coordinator of the Parent Education and Preschool Department; and Mrs. Frank Spratlen and Mrs. O. R. Birkland, who are cooperative members of the Junior League of Denver.

dren. There are 79 groups with an enrollment of 20-30 children in each.

The recheck audiograms are conducted at the Denver Hearing Society in their soundproof room. Testing is done by the staff of the Hearing Society, aided by graduate students of the University of Denver. The criteria for the test were originally established by a committee of otologists representing the Colorado Society of Otolaryngology.

The statistics derived from the 1957-1958 screening of 1,635 children demonstrate the effectiveness of the program. Only 2 per cent of the children could not be tested because of unwillingness to cooperate. Seventy-four (4.5 per cent) were suspected to have hearing losses and upon final threshold audiograms, 46 (2.8 per cent) children were verified to have significant hearing impairments. The criteria for designation of failure on the test was either a 15 db. loss at one frequency or more, and/or two 15 db. differences between air and bone conduction. This latter criterion was established as a result of the findings in the pilot study which indicated that this age child can be expected to have −10 or better hearing, and therefore a 5 db. loss by air conduction would be a significant loss if −10 bone conduction thresholds prevailed.

A further breakdown of the findings revealed the following distribution:

20 per cent—nerve loss, mainly in high frequencies.

80 per cent—conductive loss:

50 per cent—high frequency conductive loss.

48 per cent—flat conductive loss.

2 per cent—low frequency conductive loss.

These findings are in agreement with national studies which indicate that 80 per cent of the hearing problems of children are of a conductive nature, which may yield to medical treatment. Careful checks in the original pilot study indicated that almost all of the conductive losses which were discovered were either improved or restored to normal with medical treatment. These facts point to the effectiveness and great need for early detection of hearing impairments for this age group.

The breakdown of conductive losses suggests some interesting conclusions. Fifty per cent of these losses were high frequency conductive losses, indicative of what has been termed a "mass tilt" type of audiogram. The high frequency tilt is customarily interpreted to indicate the presence of mass in the middle ear. This fact would point to a conclusion that 50 per cent of the conductive-type losses in children are caused by a serous or gelatinous mass in the middle ear. The medical implications here are certainly significant.

The Denver Public School program has definitely shown the practicability of testing the hearing of preschool age children by rapid screening methods. It is being continued with the excellent cooperation of the Junior League volunteers and the Denver Hearing Society.

Another group of 1,508 preschool children have been tested during the 1958-1959 school year and 56 (3.7 per cent) were found to be in need of follow-up care. A few cases are here summarized to demonstrate the types of cases found by such a program. Complete follow-up studies have not been done to find the degree of improvement after medical care was obtained.

1. Boy of 5 years thought to be slow in speech development because he never sounded "S's," etc., was found to have a bilateral conductive loss of 30 dbs. He is receiving medical treatment and improving in hearing and speech.

2. Girl of 4 years was referred to the family physician with her audiogram denoting about 25 dbs. loss. The physician preferred to wait a year and retest before instituting any definitive care.

3. Boy of 4 years was found defective in one ear. On subsequent otologic examination an atresia of the canal was discovered for which the family has obtained plastic surgery.

4. Girl of 5 years showed a moderate bilateral loss and was taken to the family physician who performed a tonsillectomy and adenoidectomy. Four months later the loss was still present and the mother was concerned that more should be done.

General conclusions

1. In the past four years Denver preschool children have been tested by a new and simple screening test using "common sounds" filtered and calibrated to allow accurate audiometry.

2. During routine screening the past two years, 3,143 3 and 4-year-olds were tested and 126 (4.0 per cent) were suspected of having hearing losses.

3. Parents, physicians, and school need to be more aware of the importance of early attention to the hearing impairments of the preschool age children, when at least 80 per cent can be cured or arrested by adequate medical care. •

Palliative treatment of carcinoma of the esophagus*

Samuel Levine, M.D., Denver

A mushroom catheter with a retaining string at each end serves as an excellent means of deglutition in inoperable esophageal cancers.

SURGICAL EXCISION OF CARCINOMA of the esophagus, although having improved the immediate outlook for the disease, still leaves much to be desired since long-term survivals are notoriously few in any series. Ravitch[1] has made the pertinent observation that the classical type of cancer operation, involving en bloc excision of the primary lesion with its lymphatics in continuity, is anatomically impossible of application to the esophagus, with the possible exception of its distal end. Survival statistics reflect these unavoidable facts. Sweet[2] reports only one five-year survival out of 30 lesions involving the mid-esophagus. Ravitch reports no five-year cures at Johns Hopkins, and the results from other clinics are similar.[3] Nevertheless, the picture of esophageal malignancy, accompanied by inability to swallow saliva, constant hacking, aspiration, pneumonitis, and finally death is such as to bar without question a policy of therapeutic nihilism. Simple gastrostomy no longer has any place in treatment, since it serves merely to prolong a miserable existence. Deep x-ray therapy has likewise not affected the course of the disease, except for individual instances of long term survivals.

Resect if at all possible

It appears justifiable, therefore, that attempts at resection should be made whenever this appears to be at all feasible, restoring continuity either by esophago-gastrostomy, by one of the several methods of small or large bowel transplantation described in the past several years, or by the prosthetic method of Berman. On the other hand, in the face of a lesion infiltrating widely into adjoining structures and with firm fixation of the esophagus, the surgical time, morbidity and operative mortality associated with procedures necessary to restore deglutition seem to offer poor return for a large investment. It is in the latter type of case that the Souttar principle still is applicable and offers opportunity for considerable palliation.

Indwelling tubes

In 1927 Souttar[4] reported the use of an indwelling tube made of a coil of German silver wire and placed through the carcinomatous stricture by endoscopic manipulation. Since then, various applications of this principle have appeared in the literature. Brown[5] employed a silver tube which was inserted through a longitudinal slit in the esophagus at thoracotomy. Ravitch, et al., used a plastic variant to bridge a defect fol-

*Presented before the 88th Annual Session of the Colorado State Medical Society at Colorado Springs, September 24-27, 1958.

lowing resection. In each case the fundamental objective is the same: achievement of immediate deglutition. The method appears to be ideally suited to the purpose.

We have made use of an indwelling mushroom catheter, slightly modified by removing the tip of the mushroom, leaving only a flange of rubber at one end. This flange serves as a stop which rests on the proximal end of the tumor and prevents passage of the catheter. If, at thoracotomy, the tumor is deemed non-resectable, a simple Stamm gastrostomy is made and a silk string is placed through the esophagus by endoscopy and brought out the gastrostomy. In some cases the patient has swallowed a string prior to surgery and it is already in the stomach. The non-flanged end of the catheter is then transfixed with the proximal end of the string, and an additional string perforates the flange, to be used to retrieve the tube. The tube can then be pulled through the carcinomatous stricture and left in place. With a tight stricture it is best to start with a small catheter, usually 24 to 30 F. This makes possible immediate deglutition of fluids. After the stricture has been dilated several days by the tube, the latter is retrieved merely by pulling the upper string. The next larger size tube is then affixed to the strings, and replaced by traction on the lower string. The flange insures placement of the prosthesis exactly at the point of narrowing. In this fashion a tube of size 44 F can eventually be placed through the stricture, enabling the patient to swallow fluids and a soft diet quite easily.

The inoperable patient

In the clinically inoperable patient the same method is applicable. A Stamm gastrostomy is done, either under local or general anesthesia. The patient is then asked to swallow a string with a small mercury bag as a guide. In many cases the bag will find its way through the stricture. If not, the string can usually be passed by endoscopy, or following retrograde dilatation through the gastrostomy. The procedure is then the same as already described.

After a string is in place all maneuvers can be carried out with no anesthesia or with only cocaine anesthetization of the pharynx. The gastrostomy serves only as an exit for the lower string, and is kept occluded with a plastic button. Between insertions of progressively larger tubes we have brought the proximal string through the nose and attached it to the cheek. It is much more comfortable to the patient, however, to have a dentist affix a small silver wire loop to a molar tooth, through which the string can be anchored out of sight.

CASE REPORTS

Case 1: A 43-year-old Spanish-American cleaning woman was admitted to the American Medical Center cancer service in March, 1956, with a history of dysphagia for the previous five and one-half months. Esophagram revealed a suspicious area in the mid esophagus. Esophagoscopy revealed an ulcerative lesion of the esophagus 25 cms. from the incisor level, and biopsy was positive for squamous cell carcinoma. A left thoracotomy was done one month after admission. The tumor was found to extend 4 cms. below the aortic arch. Grossly involved regional nodes were evident. In view of the lymph node metastasis, and the hazard involved in mobilizing the esophagus from below the aortic arch, it was deemed inadvisable to attempt esophageal resection for merely palliative purposes. The chest was closed, and a simple gastrostomy performed. Through the latter opening, a string which the patient had swallowed preoperatively was retrieved; and in the manner previously described a No. 40 mushroom catheter was pulled through the carcinomatous stricture. In May, this catheter was replaced with a No. 45. The patient was able to swallow fluids and puréed foods quite readily through this prosthesis. As expected, however, her subsequent course was gradually downhill, and she expired in August, 1956.

Case 2: A 75-year-old white retired smelter worker entered the cancer division of the American Medical Center in April, 1957. He had first noted dysphagia in January of 1957, and had been studied at the Cochise County Hospital in Douglas, Arizona, where esophagoscopy and biopsy had revealed carcinoma of the esophagus.

On admission he was able to swallow only liquids. On May 12, the patient swallowed a string; and on May 14, esophagoscopy confirmed the presence of a carcinoma 30 cms. from the incisor level. Gastrostomy was performed, with the placement of an indwelling No. 45 mushroom catheter under general anesthesia. Liquid and soft diet was given postoperatively and was well tolerated. On one occasion esophagoscopy was necessary to clear the tube of large food particles which the patient had swallowed without chewing. Except for this episode, he continued to swallow comfortably. Death occured on August 13, 1957, following a massive hematemesis.

Discussion

For the clinically inoperable patient and the patient who is patently non-resectable on thoracotomy, the method offers a ready and relatively easy means of achieving immediate deglutition, without the morbidity and mortality entailed by surgical by-passing procedures. Deglutition is achieved without the necessity and risk of resection. No special apparatus is necessary, mushroom catheters of various sizes being generally available. It is our feeling that the method should be given wider application in non-operable or non-resectable cases. •

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Emergency management of chest injuries*

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Consider component parts of chest injury problems and establish priority of treatment for them.

THE INITIAL EVALUATION AND MANAGEMENT of any case of major trauma is a formidable and somewhat terrifying task, regardless of the previous experience and skill of the physician. Major trauma of the chest is no exception. On the contrary, it is in this area that immediate decisions and action are necessary in order to resuscitate the patient and prevent future complications. It is obviously impossible to discuss in detail all aspects of chest injuries. The following remarks will be confined to the initial, or early management, of some of the more common and emergent problems encountered.

Basic principles

The application of two basic principles is essential to eliminate confusion and initiate measures which may be life saving. First is the separation of the patient's condition into component parts. While the physician may temporarily be at a loss when confronted with a patient exhibiting a crushed chest with hemopneumothorax, dyspnea, cyanosis and shock, consideration of any one of these problems, taken alone, does not seem nearly so formidable. The second basic principle which naturally follows is the establishment of a priority of attention or treatment once these component parts are recognized. While this implies a rapid clinical evaluation of the total patient, primary consideration should be focused on the chest because of the vital nature of cardiorespiratory function. At this point it is well to acknowledge the value, in fact the indispensability, of laboratory procedures, particularly x-rays of the chest and abdomen. Initially, the physician must rely on his four clinical senses: inspection, palpation, auscultation and percussion.

Priority of management

Before considering the various component conditions encountered in thoracic trauma, the following sequence of priority of attention or management should be emphasized:

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1. Establish airway — oropharyngeal, intratracheal, tracheostomy.

2. Provide ventilation — mask, catheter, assisted or controlled respiration.

3. Restore integrity of thoracic cage — close sucking wounds, stabilize chest wall, evacuate pleural space.

4. Control shock—control external bleeding, restore circulating fluid volume, etc.

5. Control pain—intercostal block, IV Procaine, Demerol.

6. Obtain laboratory data—x-rays, blood count, etc.

7. Re-evaluation—repeated check on condition and response.

Restoration of integrity of chest wall

The treatment of simple rib fractures rarely constitutes a serious problem. Intercostal block, including at least two above and two below the level of the fracture is the treatment of choice. Adhesive strapping results in blistering the underlying skin, restriction of chest motion with inadequate ventilation and cough, and it does not relieve pain as effectively as intercostal block.

A flail or unstable chest wall with its paradoxical motion is a serious condition and demands immediate attention. Skeletal traction by means of towel clips, wire or screws is the most widely used initial treatment. However, at times, the use of sandbags or adhesive pressure dressings, using tape or elastoplast, provides a simple, quick and effective method of reducing the paradox. Indeed, the position of the patient may effectively splint the mobile chest wall as when the rib fractures are located posteriorly. Such a patient lying on his back may need no further treatment. The disadvantage of such pressure, as contrasted with traction in this condition, is that the chest volume is decreased, resulting in impaired ventilation.

Another method of traction is the use of Kirschner wires through the soft tissues of the chest, particularly the pectoralis major. From two to five pounds of traction is usually sufficient to provide stability. A tracheostomy should be performed routinely in patients with severely crushed chests in order to decrease airway "dead space" and simplify the aspiration of secretions (Fig. 1).

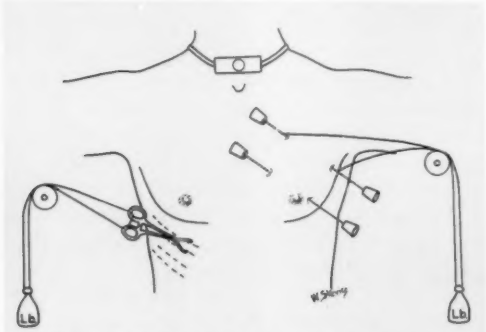


Fig. 1. Left: Skeletal traction by means of towel clip. Right: Soft tissue traction utilizing Kirschner wires.

Pneumothorax

Most cases of severe chest trauma have some degree of pneumothorax. Tension pneumothorax demands immediate decompression. An intercostal catheter attached to an underwater seal is the treatment of choice. Fig. 2 demonstrates a rapid method of decompression. Several intercostal needles with attached IV tubing can be used if necessary

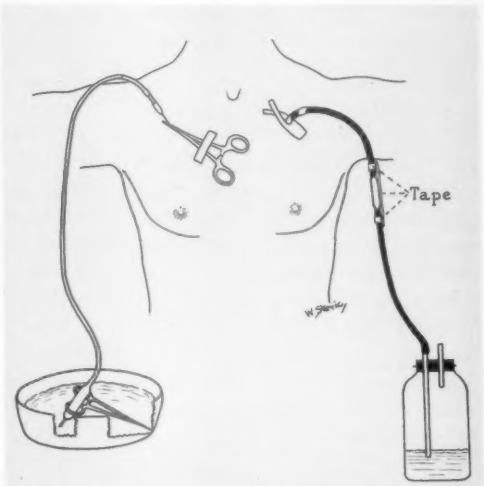


Fig. 2. Left: Emergency water-seal utilizing needle and IV tubing. Note Murphy Drip chamber passed through finger loop of hemostat to hold it beneath water. Right: Conventional intercostal catheter water-seal.

until equipment is assembled for insertion of an intercostal catheter. Catheters may be inserted by nicking the skin with a scalpel and forcing the catheter into the pleural space with a hemostat if a trocar is not available. The possibility of bilateral pneumothorax must be kept in mind.

Since pneumothorax may result from escape of air from the lung, through a hole in the chest wall, or from both, the closure of a sucking wound of the chest may result in a tension pneumothorax if there is also a leak in the lung. Attempts to devise a flap-type dressing for sucking wounds of the chest are usually unsuccessful. Complete closure of such a defect with an occlusive dressing plus intercostal decompression is preferable.

Mediastinal emphysema

Mediastinal emphysema as well as subcutaneous emphysema may accompany tension pneumothorax. Subcutaneous emphysema rarely requires any treatment other than decompression of the pneumothorax. Because of the danger of pressure on mediastinal structures, particularly the great veins, in patients with mediastinal emphysema, tracheostomy with a generous skin opening in the suprasternal notch should be performed for decompression. Tracheostomy prevents the building up of pressure behind the closed glottis which forces air into the mediastinal planes. Air in the mediastinum is often associated with a crunching sound heard with the stethoscope synchronous with heart beat (Hamann's Sign). X-rays offer confirmatory evidence of its presence.

Hemothorax

Thoracentesis is mandatory when physical signs indicate fluid in the pleural space. The tap not only removes the fluid and allows the compressed lung to expand, but also indicates the type of fluid present—blood, chyle, bile or gastric juice. In the case of blood or chyle, repeated aspirations may constitute definitive treatment. The others require thoracotomy. Air should not be injected into the pleural space following withdrawal of fluid, nor should blood be left in the chest in the hope that it will tamponade further bleeding. Minimal bleeding, especially from the low pressure pulmonary bed, will usually cease when the lung expands to the chest wall. Massive bleeding is an indication for thoracotomy. In neither case will thoracentesis affect the bleeding, while the pleural blood or hematoma prevents expansion of the lung and may result in the need for a subsequent decortication.

When massive bleeding exists, the aspirated pleural blood can be transfused directly back into the patient's circulation. In cases of less severe bleeding, replacement of the blood may be dangerous as the hemoglobin content of aspirated blood is often surprisingly low. It is well, when time permits, to run a hemoglobin and hematocrit on aspirated blood and give replacement transfusions accordingly. Just as too little blood replacement is dangerous from the standpoint of shock, over-transfusion may result in equally dire consequences in a patient whose pulmonary vascular bed is compromised by compression from air or fluid or by a large pulmonary hematoma. Under such circumstances additional pulmonary edema secondary to hypervolemia can be fatal.

Cardiac trauma

Severe trauma or lacerations of the heart or great vessels rarely constitutes a problem as most of the patients have exsanguinated before reaching a hospital or physician. One heart condition which should be considered is cardiac tamponade. The evaluation of cardiac pulsation by fluoroscopy is usually mentioned as the major diagnostic aid. It is not always feasible to transport a severely injured patient to the fluoroscopic equipment. The checking of venous pressure gives accurate information, is simple to perform and does not necessitate complicated equipment or movement of the patient.

Once the diagnosis of cardiac tamponade has been established, pericardicentesis should be performed. Repeated taps may be necessary. If bleeding continues, thoracotomy is indicated. In the performance of pericardial tap, injury to the coronaries and mycardium may be minimized by passing a polyethylene catheter through a large bore needle which has been introduced into the pericardial sac. As the blood is aspirated there is no danger of laceration from the needle point and the polyethylene catheter may be left in place,

temporarily, to facilitate subsequent aspirations should they become necessary.

The occurrence of cardiac injury from blunt trauma, especially the so-called "steering-wheel" injury, deserves emphasis. An electrocardiograph should be obtained as early as possible in all such patients and serial electrocardiographs should follow. While evidence of myocardial damage will usually not be present initially, such a tracing provides a baseline for future comparison. When cardiac damage is suspected these patients should be managed as an acute coronary occlusion, except that anticoagulants are contraindicated. Subsequent management will depend on clinical response and electrocardiographic interpretation.

The indications for early thoracotomy may be listed as follows:

1. Large chest wall defects.
2. Uncontrolled hemorrhage.
3. Uncontrolled air leak.
4. Large intrapleural foreign body.
5. Suspect injury to mediastinal structures or diaphragm.

Conclusion

It is apparent that a number of methods of management of chest injuries may be utilized, depending upon available equipment and the ingenuity of the individual physician. However, the principles upon which these various methods are predicated are basic. The prompt restoration and maintenance of cardiorespiratory function is the prime aim in the treatment of thoracic trauma. •

Care of the cancer patient

John S. Bouslog, M.D., Denver

Particularly in the incurable case, the welfare of the patient demands our interested sympathetic attention. Radiation is often an invaluable asset.

IT IS WELL KNOWN that disease respects no one, and that is especially true of the Number Two Killer, cancer. Cancer kills one man, woman, or child every two minutes in the United States. Of approximately 5,000,000 men between the ages of 18 and 37 rejected for medical reasons during the last war, 32,000 were rejected because of some form of cancer. About one out of every four persons alive in the United States will develop cancer at some time in his life or, on the average, cancer strikes approximately two out of every three American families.

The American Cancer Society renders invaluable service by its educational work in urging the patient to consult his physician early whenever one of the seven danger signals is evident. One possible result of that educational work is shown by statistics which indicate that patients are seeking medical attention earlier than was the case five years ago, and accordingly that more cures are being achieved.

Early cancer yields a high per cent of cure whether treated by surgery or irradiation, and the earlier the treatment is instituted the higher the percentage of good results. But "early cancer" is only that if it is diagnosed early, and early diagnosis depends on education of the lay public and vigilance of the attending physician. Indifference or negligence in even slightly suspicious lesions is unforgivable on the part of a physician today with the widespread knowledge avail-

able and the manifold aids to positive diagnosis.

What's the use?

The hopeless cancer patients should receive equal attention. It is they I particularly wish to discuss, for they are often neglected because the attending physician takes a "what's the use?" attitude. In hospital cancer clinics, I have noted that it is almost impossible to interest the interns in such cancer patients, because they prefer being in the operating room.

Lately, there have been more and more signs that we physicians are becoming so involved in the scientific aspects of medicine that we are ignoring our paramount responsibility, namely, the patient and his welfare. The doctor's obligation to the patient and the patient's family must be kept in mind constantly as well as the responsibility to restore that patient to a functional and comfortable life for as long as possible and simultaneously to maintain his morale. The physician should consider it rewarding to afford a patient a few days, months, or years of comparative comfort as no one knows how long the patient may live. This was brought home to me forcibly many years ago when in general practice. I was called to attend a woman suffering severe hemorrhage. Both the physicial and x-ray examinations showed advanced pulmonary tuberculosis, and I informed the husband that the patient did not have long to live, but she lived for over a year. Or consider a more recent instance of a patient with brain tumor which at operation proved nonremovable, and for whom a prognosis was given for six months of life. That was ten years ago, and she is still alive and has been able to participate in family festivities and enjoy her children and grandchildren.

When we physicians consider palliation for incurable cancer we are referring to terminal care. In my opinion, that is a course which we should employ cautiously, because when we do so we, ourselves, undergo a subtle change and admit subconsciously that there is nothing more we can do for the patient. The patient with the advanced heart lesion will die of it eventually, but no one knows when. Just so, the advanced cancer will kill the patient who has it, but he is not necessarily ready for the grave immediately. We must not ignore the seemingly hopeless case which, with proper treatment, might show such improvement that it could be exploited to possible cure.

The reason for that is threefold as no one can evaluate the potential of a particular tumor's growth, what peculiarities the particular tumor may have, or how widespread its dissemination may be. Recent research indicates that there is evidence of the probability a great number of cancers are generalized from a very early stage. Whether the patient develops disseminated malignancy lies in his own resistance, the bed in which metastases may or may not develop, and in the resistance of that bed to growth of the metastases.

The over-all management of a hopeless cancer case is completely different from that of a curable one. The treatment should include less vigor, small doses of radiation, and less surgery. Nothing must be added to the patient's burden that will increase his discomfort. Nor is the care of the cancer patient the responsibility of any one individual, because each incurable cancer presents different therapeutic, economic and psychologic problems and, therefore, each one must be considered individually. Thus, management of these cases should be the result of the combined knowledge, skill and deliberation of the family physician, surgeon, internist, and radiologist, aided by anyone else concerned with the patient's welfare. For example, the patient's spiritual advisor is often a source of real help, especially in the terminal stages.

Radiation

Care of these patients is so inclusive that I want to show how radiation can be helpful. I should like also to mention some of the surgeons who believe that if a lesion is not surgically removable nothing else will avail, but who order repeated x-ray examinations at two-month intervals for the remainder of the patient's life without attempting any therapy whatsoever.

Radiation therapy offers many modalities for treatment of malignancy, such as machines ranging from 125 KV to megavoltage,

cobalt beam, isotopes, and so forth. However, none of these various agents is of any value without a radiotherapist who furnishes the brain power to direct and manage the therapy. At the Rocky Mountain Cancer Conference in July, 1958, Dr. Richard H. Chamberlain, Professor of Radiology at the University of Pennsylvania, stated, "There is far too much talk about cobalt beam, megavoltage. They do not change the total picture. I do not think any radiologist has a single instance of a patient whom he feels certain he has improved or whose life was saved or who was cured by one of these modalities, but which could not have been achieved by an equal amount or a little more time and effort with another modality." At the Fourth Interamerican Congress of Radiology, Dr. Robert S. Stone, Professor of Radiology, University of California, made the statement, "If I had cancer I would pick out the radiologist I wanted to treat me and let him select the modality that he wanted to use."

One of the criteria for choice of a radiologist could well be his method of diligent care in following his patients during and after treatment. No matter how good the result seems to be, every patient who has received radiation therapy should be examined at one-month intervals for the first six months, at two to three-month intervals for the succeeding two years, and thereafter at four to six-month intervals. Only by such frequent examinations is there any hope of detecting recurrence or metastasis in the stages when there is the possibility of successfully curtailing involvement. This is especially important in early cancer as is exemplified in Case 1 reported here, in which the periodic examination indicated the need for therapy to the pelvis before any radiologic evidence of involvement.

Radiation provides a variety of values that have nothing at all to do with the therapeutic concept of care. One of the most important to the patient is the relief of pain. This is especially true of bone pain from advanced and metastatic malignancy. Usually, radiation therapy can relieve this pain no matter what the origin or how relatively insensitive the original tumor may be. The radiotherapist encounters patients with breast cancer, with thyroid malignancy, or with a variety of other malignancies including bronchogenic carcinoma, who are permitted to suffer with bone metastasis, but who are denied radiation therapy which almost always gives partial relief, often within ten days of instituting treatment. It is really pitiful to observe these cases not being given a chance of relief.

Another neglected field is that of tumor masses which the pathologist has classified as radio-resistant. Often, the proper intelligent utilization of radiation therapy will reduce those masses and relieve a considerable measure of the patient's discomfort. Also gratifying is the response noted at times in cases of lung tumor in which relatively small doses of irradiation result in relief of cough and dyspnea though the lung is as much as one-third to one-half involved by metastatic tumor. Collodial gold is a valuable agent for the relief of fluid accumulation in pleural and peritoneal cavities. Ulcerative, bleeding areas on the chest wall from recurrent breast tumor usually respond to the proper treatment, with consequent relief for the patient.

The following four cases illustrate the results that may be obtained by judicious use of currently available radiation therapy:

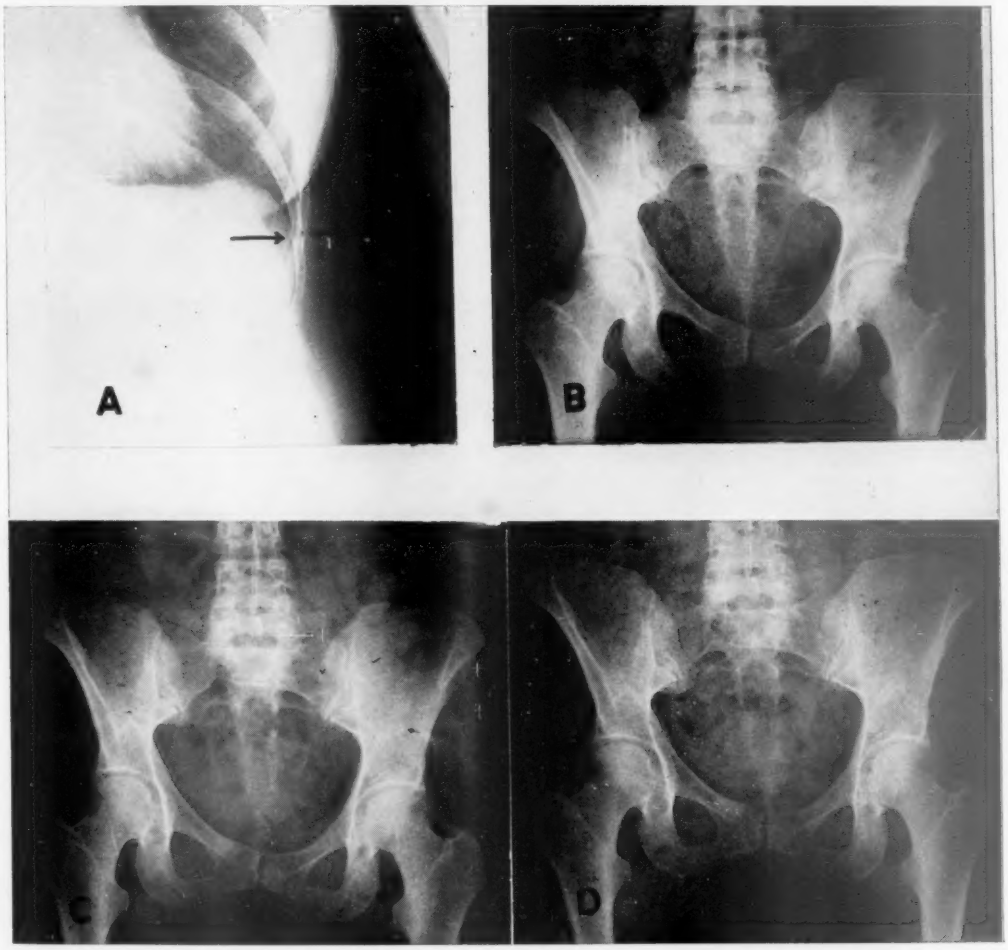
CASE 1

Mrs. G. J., aged 41 years, found a lump about one inch in diameter in her right breast below the nipple and was told it was mastitis. Six months later (January, 1954) she consulted Dr. F. Robert Mizer and the late Dr. W. W. Haggart, and Dr. Haggart removed the breast. The pathologist's report was carcinoma with metastasis to the axillary nodes. Her condition was aggravated by a psychologic stress situation due to recent widowhood and a 10-year-old son to support. Radiation therapy was given, and no symptoms or recurrence appeared until 20 months after surgery (August, 1955), when she began having pain in the left lower chest and lower ribs. X-ray examination (August 10, 1955) showed area of rarefaction in the left ninth rib about 5 cm. from the anterior end. No other bony involvement was evident. A course of radiation therapy was given over this involvement. Within two weeks the pain had ceased, and there was no tenderness. Roentgenograms made 15 weeks later (November 21, 1955) showed recalcification in the involved area. Later the same month, the patient developed pain in the pelvis and lower spine and, although there was no roentgen evidence of bony change, because of persistent pain x-ray therapy was resumed.

One month later, the pain had ceased. In February, 1956 (three months later), testosterone was prescribed and a course of P^{32} was given. Nine months later (November 20, 1956), roentgen examination showed areas of increased density in bones of pelvis and third lumbar vertebra and proved that early metastatic involvement had been present at the time of the previous examination, but it was not sufficiently advanced to be demonstrated. Roentgenograms made 18 months later (May 7, 1958) showed continued improvement of the pelvic involvement which was only indistinctly visible. The bony structures appear nearly normal. At the present time, the patient has had no symptoms for more than two years, and she is living a normal life.

CASE 2

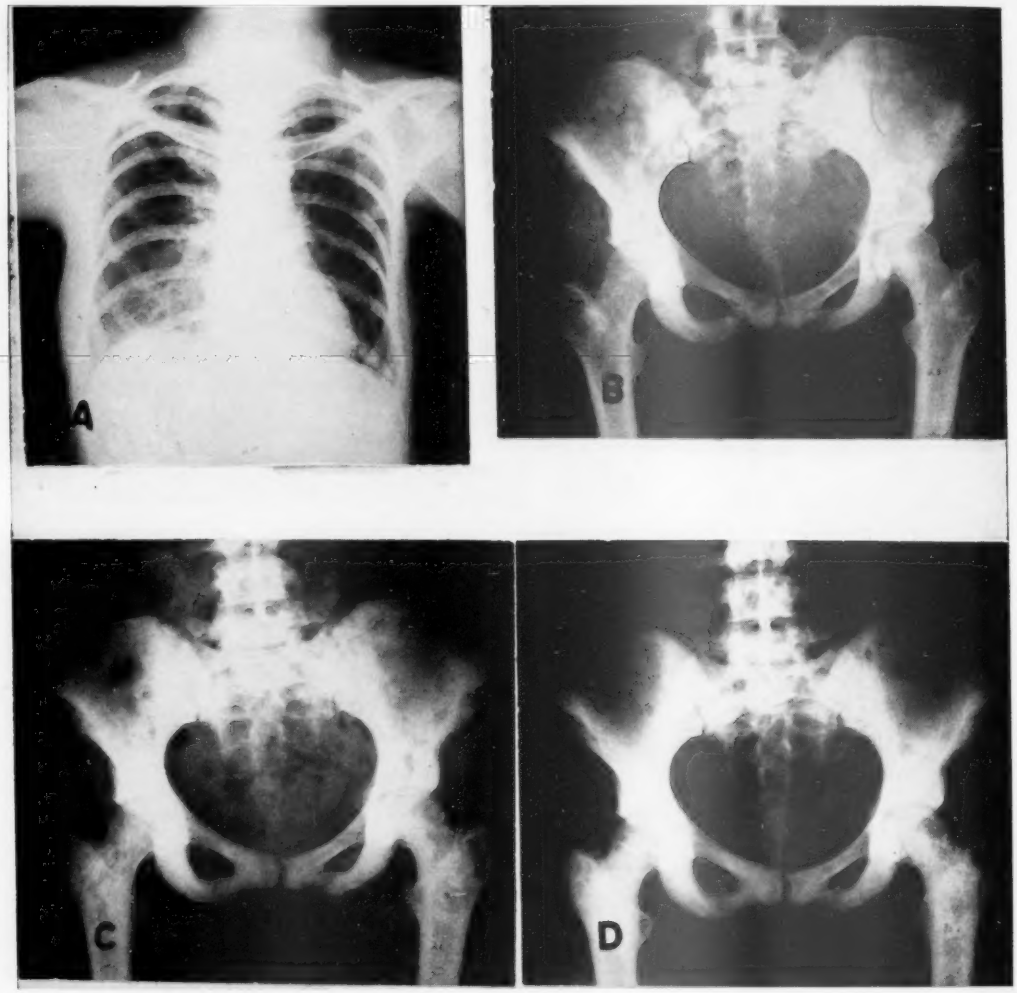
Mrs. H. M., aged 42 years. In May, 1951, she first noticed a lump about one inch in diameter above and to the outside of the left nipple. Three



Case 1. Unpredictability of mode and direction of spread. Breast cancer with axillary involvement in which expected metastases would be to the lung.

A. Roentgenogram showing metastatic involvement of ninth left rib only.
B. Fifteen weeks later (November 10, 1955) patient has symptoms of probable spine and pelvis involvement, but no roentgen evidence of any bony change.
C. Roentgenogram (November 20, 1956) shows areas of increased density scattered through the pelvis, which would indicate that there was metastatic involvement, but was not visualized on previous examination.
D. Roentgenogram (May 7, 1958) shows the areas of density in the pelvis less distinct and the bony structures appearing more normal.

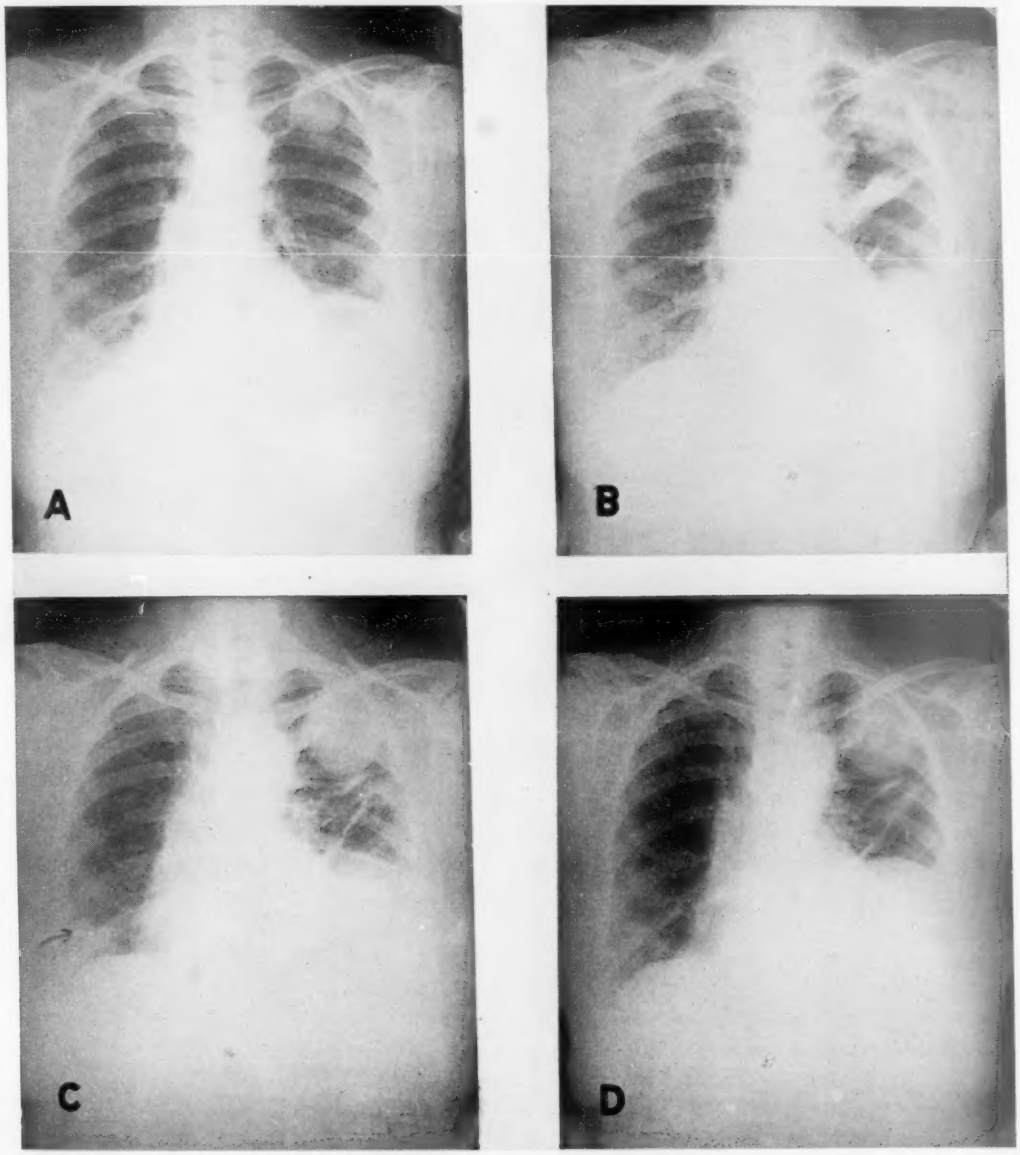
months later (August 2, 1951) she consulted Dr. Robert Burlingame, who did a radical mastectomy. The pathologic report was adenocarcinoma with metastasis to axillary lymph nodes. Radiation therapy was given, and no symptoms or recurrence appeared until 27 months later (February 28, 1954), when a nodule 8 mm. in diameter appeared in the scar. The patient was advised to have it removed. This was done one month later, and the pathologic report was recurrence. The patient did not report again for 20 months (October 13, 1955), when her entire left chest wall was an ulcerative, bleeding mass with scab formation, and her pain was so severe as to require codeine every three hours. The chest roentgenograms made at this time were still negative for



Case 2. Patient on whom radical mastectomy has been performed, who had been treated by radiation, had surgical removal of a recurrence in the scar without subsequent therapy, and who reported 20 months afterwards with massive ulceration of the skin of the chest wall and probable involvement of the whole bony skeleton.

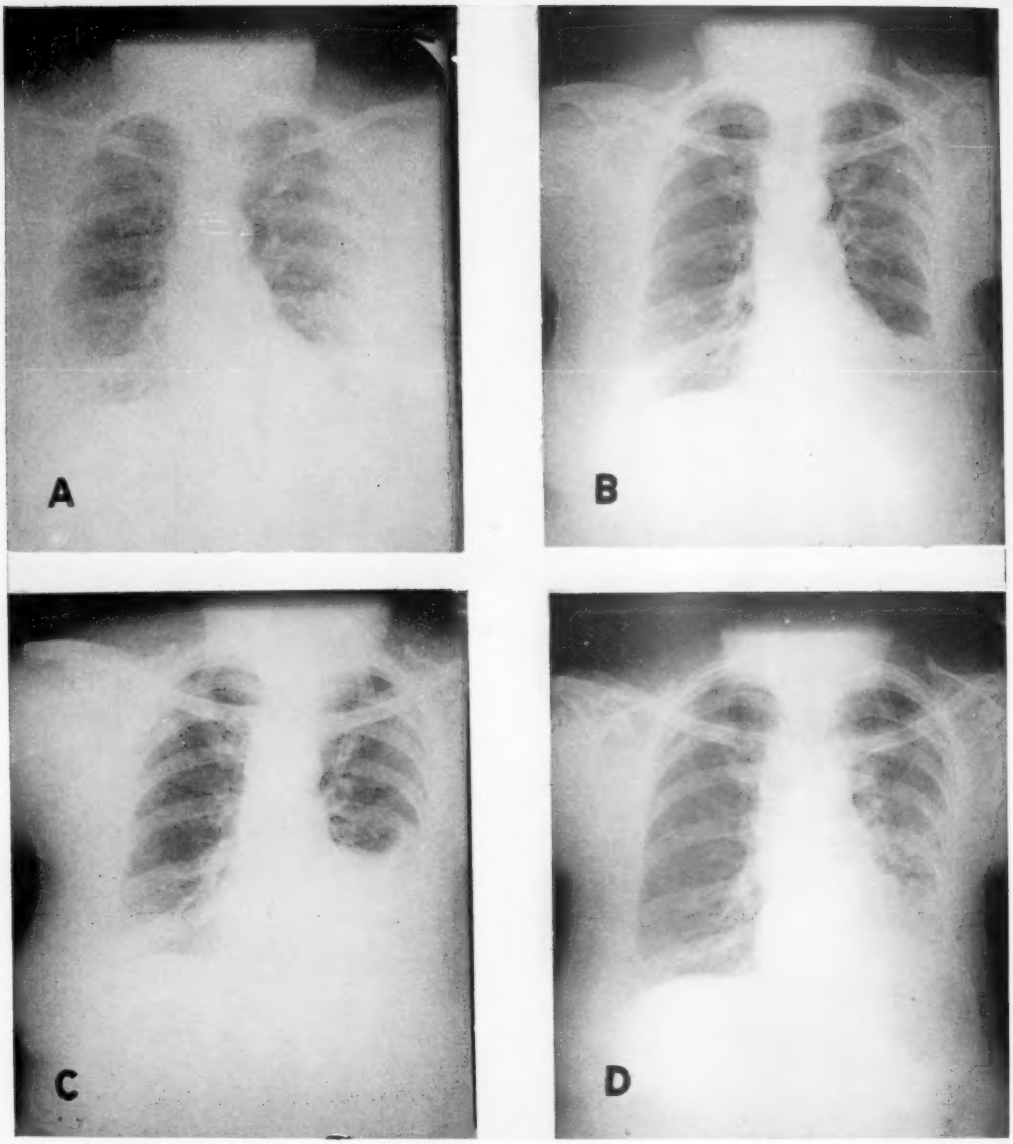
A. Chest shows no evidence of any involvement of the lungs but involvement of the ribs.
B. Oval osteoblastic areas of varying size scattered through the pelvis and each upper femur (October 13, 1955).
C. Roentgenogram (April 19, 1957) shows the oval areas of increased density have now changed. There is more uniform density of the bones of the pelvis.
D. Roentgenogram (July 30, 1958) shows more uniform recalcification in the bones of the pelvis. The bones of her body show similar change.

pulmonary involvement, but there was marked skeletal bone involvement embracing the ribs, scapulae, spine, pelvis, etc. This was of the osteoblastic type rather than the usual osteolytic which would be expected. The right breast had a mass, and there were many small nodules in the skin of the scalp and back. Radiation therapy was instituted, and in less than one month the pain had



Case 3. Inoperable carcinoma of the breast made operable by radiation therapy. Four years later metastases to lumbar spine and lungs.

A. Chest (11-13-53) negative.
B. Chest (10-29-57) four years later, showing some fluid in left base. Right lung negative.
C. Chest (1-6-58) fluid increase rapidly in left chest, requiring frequent thoracentesis. Right lung negative. Symptoms uncontrollable.
D. Chest (2-18-58) six weeks after instilling radioactive gold. Marked decrease in fluid. Some congestion showing in left lung. Right lung negative. Symptoms markedly improved.



Case 4. Cancer of the cervix (1-15-53) cured. Came in for periodic examination (9-17-57) complaining of pain in left shoulder. Roentgenogram showed lesion in left upper lobe, pathologist thinks may be metastatic involvement.

A. Roentgenogram (9-17-57) showing lesion in left upper lobe. Left diaphragm high and fixed, suggesting possible mediastinal involvement.

B. Roentgenogram (10-30-57) after segmental resection of mass and before radiation therapy. Oval mass in left upper lobe due to the pleural involvement. Left diaphragm still high. Some increased density at root of each lung.

C. Roentgenogram (5-13-58) shows oval area of increased density in left upper lobe slightly larger. Less intralobar reaction. There is a small oval area of increased density in the right base. Slightly less density at root of each lung.

D. Roentgenogram (7-21-58) shows oval area in the right base less distinct. The density at root of each lung practically the same. No definite change in the left lung.

practically ceased, and the patient discontinued the codeine. Testosterone was prescribed also. Within three months' time, the skin over the left chest was healed, and the nodules on scalp and back had diminished. Three months after resumption of therapy (January, 1956) she was given P^{32}. Occasionally she has some pain which is controlled by salicylate. December 23, 1956, her husband died and she had to go to work. She has worked every day to date, at times doing work that requires lifting bundles of heavy clothes. July, 1958, she developed some pain in the lower cervical region, was given some radiation therapy and the pain ceased in 10 days.

CASE 3

A large obese woman, aged 60 years, with no history of surgery or serious illness, had a tumor of the left breast of five years' duration before she consulted Dr. L. Clark Hepp. On examination there was massive ulceration of the left breast accompanied by foul odor, and there were glands in the axilla and above the clavicle. It was considered inoperable cancer. Roentgenogram of the chest was negative. In November, 1953, Dr. W. W. Wasson gave radiation therapy to the left supraclavicular and axillary regions both anteriorly and posteriorly to the breast. Three months later (February, 1954) the mass was one-half its original size. One year after consulting the radiologist (November, 1954) Dr. George F. Wollgast performed a simple mastectomy. The pathologic diagnosis was duct carcinoma. Four months later, she was still in good condition except for a small nodule above the clavicle which was treated by irradiation. Periodic examinations throughout the succeeding two years continued negative. In June, 1957, there was swelling of the left arm with a mass beneath the muscle anterior to the shoulder. X-ray therapy to the mass and the axilla produced complete relief. Three months later (September 5, 1957) the patient complained of low back and right hip pain, and consequently radiation therapy was administered to those areas. Three months later (December, 1957) there was a fluid level noted on her chest roentgenograms which increased rapidly during the following month, which required thoracentesis. January 14, 1958, Dr. Robert W. Lackey instilled radioactive gold into the left pleural space with good distribution. The patient improved steadily, and at examination in March, 1958, she had only slight cough but complained of pain in her back. Roentgenograms showed involvement of the neck of the left femur, but the previously treated areas were all in good condition. Male hormone had been prescribed at the time of surgery and had been continued ever since. She looks and feels well and has suffered no weight loss.

CASE 4

Mrs. A. O. T., aged 58 years. In August, 1950, the patient had a hysterectomy for fibroid tumor. Twenty-six months later she noticed blood in the toilet, and again two months later. One month later (January, 1953) she consulted her physician, Dr. Thomas H. Foley, about her "goiter." Pelvic examination revealed ulceration of the cervix which was biopsied and the pathologic report was "squamous cell carcinoma." External and intravaginal x-ray therapy and radium were given, and she responded to treatment. The cervix healed and remained so, and no glands were palpable. September 17, 1957, the patient came in for her periodic check examination which was essentially negative, but she complained of pain in her left shoulder of the dull aching type the last six weeks which had been diagnosed by another physician as arthritis. She had no chest symptoms. Roentgenograms of the shoulder revealed a mass in the apex of the left lung, and the chest roentgenogram showed an oval mass about 4 cm. in diameter in the left upper lobe. Operation was advised. Three weeks later, Dr. Robert K. Brown performed a segmental resection and found a mass of glands around the arch of the aorta which could not be removed. The pathologic report was transitional cell carcinoma, probably but not positively, metastatic from the cervix. Because of the inoperable mass around the aortic arch x-ray therapy was given. The density at the left lung root diminished as evidenced by roentgenogram seven months later (May 13, 1958). However, that examination also revealed a small round area in the right base, and consequently it was irradiated. Two months later (July 21, 1958) a roentgenogram of the chest showed that area less distinct which indicated a diminution of activity. The patient is still undergoing therapy.

Summary

1. Judicious utilization of the present-day radiation therapy offers potential relief of pain, discomfort, topical distress and even indefinite prolongation of life to the so-called "hopeless" cancer patient.

2. The actual modality is unimportant as compared with the skill and the knowledge of the radiologist employing it.

3. The patient's best interest can only be served by teamwork between the attending physician, surgeon, and radiologist in cooperation with the patient and the family.

4. Early diagnosis is an essential of good care of the cancer patient.

5. To insure the patient's comfort and well-being and to prolong life, constant supervision of all cancer patients and, in particular, early cases, is another essential, and this can be achieved only by periodic examinations for the duration of the patient's life. •

Colorado's new autopsy consent law

S.B. 191

Henry W. Toll, Jr., M.D.,† and William D. Aldridge, LL.B.,* Denver

Legal requirements for autopsy consent should be simple and efficient. Colorado's experience and progressive legislation can be helpful to other states.

LONG HOPED-FOR LEGISLATION simplifying the requirements for autopsy consent was passed by the Colorado Legislature in April of this year. This act, recommended by the Colorado Society of Clinical Pathologists and endorsed by the House of Delegates of the Colorado Medical Society as well as the Colorado Hospital Association, was sponsored by physician and Senator William Wells. In addition to Senator Wells, Senators Culig, Donnelly, Hobbs, and Rogers are to be particularly thanked by physicians for their interest in the legislation while Representatives Dines, Holland, and Woodhouse rendered invaluable aid in the House of Representatives.

Because this legislation will make possible changes in the routine of hospitals with regard to securing of autopsy consent, we wish to call the attention of physicians to this law. We have also outlined the procedure followed duction is obtained by extending and supiat Denver General Hospital since the law's enactment. We are aware that our procedure is not perfect, nor is it the only possible one. However, because of multiple inquiries, we have included it as a possible starting point for other hospitals to use in this connection.

Senate Bill No. 191, signed into law by Governor McNichols, May 11, 1959, set out by statute, for the first time in Colorado, the individuals from whom autopsy permission must be sought. The text of the bill is as follows:

RELATING TO THE CONSENT NECESSARY FOR POSTMORTEM EXAMINATIONS.

Be It Enacted by the General Assembly of the State of Colorado:

Section 1. Postmortem examinations. Consent for a licensed physician to conduct a postmortem examination of the body of a deceased person shall be deemed sufficient when given by whichever one of the following assumes custody of the body for purposes of burial: Father, mother, husband, wife, child, guardian, next of kin; or in the absence of any of the foregoing, a friend, or a person charged by law with the responsibility for burial. If two or more such persons assume custody of the body, the consent of one of them shall be deemed sufficient.

Section 2. Definition. As used in this act, the phrase person or persons shall include any individual, partnership, corporation, body politic, or association.

Section 3. Nothing contained in this act shall be construed as a repeal of any provision of article 6 of chapter 35, Colorado Revised Statutes 1953, as amended.‡

Section 4. The general assembly hereby finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.

The following is an excerpt from the Denver General Hospital House Staff Manual,

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‡Article 6, Chapter 35, contains the coroner's laws which are unchanged by this act.

setting forth the procedure to be followed in seeking autopsy permission under the new law:

All requests for autopsy permission must be made by the intern or resident. The Admissions Office will be responsible for locating the proper party who will then be put in touch with the doctor either by telephone or in person. Autopsy permission must be obtained in the following manner, in duplicate:

1. The nearest relative is the father, mother, husband, wife, child, legal guardian and next of kin (but not necessarily in that order). A divorced spouse has no legal authority. A separated spouse still has authority to consent to an autopsy.

2. If there is no father, mother, husband, wife, child or legal guardian, then a brother or sister may consent to the autopsy. If there be none of these individuals, then a nephew or niece, aunt or uncle, grandson or granddaughter or grandmother or grandfather may consent to the autopsy. These individuals must not be related to the deceased by marriage. A brother-in-law, sister-in-law, or nephew or niece by marriage have no standing legally and can be classified only as friends.

3. If the newborn or stillborn is illegitimate, consent of the mother is sufficient.

4. Where the husband and wife are separated, permission for autopsy on newborns and stillborns must be obtained from the parent making the funeral arrangements.

5. In the absence of any of the foregoing, permission may be obtained from a friend provided the friend assumes custody of the body for purposes of burial, or consent may be obtained from the Manager of Health and Hospitals.

As a matter of policy and good public relations, if consent for an autopsy is obtained from an individual who is making the burial arrangements within a certain class of the above required persons and an objection is raised by another individual within the same class, the autopsy will not be performed.

6. Permission must be in writing when relatives live in town. Telephone permission should be discouraged and will only be used when relatives are out of town. Permission must be witnessed by two persons listening in on the conversation. Confirmatory telephone permission should be obtained by a telegram from the relatives authorizing the autopsy.

Permission from friends and relatives by marriage can be obtained only when there are no closer relatives and only when they are willing to assume burial responsibility.

The proponents of this law feel that it will:

1. Simplify the legal requirements for autopsy consent.

2. Save valuable medical time previously wasted in the search for remote and long-lost relatives.

3. Promote medical knowledge by providing for a method of obtaining consent in cases of individuals dying without relatives. •

What a patient means to me*

Nancy Mancini, Denver

This, Doctor, is really for your receptionist. Have her read it, and be sure she worthily represents you from the first phone call and through the final visit of each patient!

PEOPLE ARE INTERESTING! Patients are people. How easy it is to forget this many times in the busy rush hours of a doctor's office! What a challenge a patient presents to the office assistant! She must at all times, under all circumstances, on the telephone or in person, be kind, cheerful, sympathetic, understanding and smiling. This is easier said than done! Thus the challenge begins. Of course, one must want to work on herself to be all these things in order to become the kind of person and medical assistant that these qualities produce.

continued on next page

*This is an essay composed as "home work" to members of a Medical Assistants Office Training Course at the University of Colorado Medical School under the auspices of the Emily Griffith Opportunity School. The author is secretary to Dr. Mitchell B. Rider.

A patient is the main part or purpose of a doctor's practice. Without them, there could be no practice. Patients are important. They are important mainly because they are people in need of something. Many times, it is up to the medical assistant to discover what she can do to put the patient at ease and, perhaps, if necessary, help him to a better disposition before he sees the doctor. If we look at it this way, we can see that there is a reason why a patient will act demandingly, disagreeably, rudely, or seemingly ungrateful. Being frightened or worried about their condition or the treatment and care they will require are big factors in their attitudes. Thus, we see they are coming to us for a reason. The simple reason—they need us! Perhaps the service they require is less than serious. They may want advice or professional consultation, but whatever the patient is here for, he is *here*, not in another office, and we are here to serve him. I often think of our office as a USO—"*You Serve Others.*" In return for our services to the patient, we receive in different ways greater or lesser chances to be improving and developing qualities in ourselves, such as patience and humility, which will make for happy living.

It is difficult to remember in all cases that the patient is really doing us a favor by coming to our doctor. Many are the temptations for a biting remark in return for a rude one, instead of a smiling apology. If only we could remember always that it is many a patient who is won over with a smile and more often than not it is the problem patient who becomes a "good will ambassador" for the doctor by referring other patients to him.

A patient represents opportunity unlimited; I like him and therefore want to serve him as best I can and, in so doing, better serve my doctor. I shall always remember the most famous quotation, "Whatever you do unto the least of these, you do unto Me." •

Treatment of nosebleed*

Richard F. LaForce, M.D., Sterling, Colorado

A brief outline of methods of stopping epistaxis with detailed description of author's method.

NASAL VESSELS ARE DIFFERENT from most blood vessels. They lie in intimate contact with bone and cartilage and are protected by only an extremely delicate mucous membrane. Nasal vessels are not supported by muscle or soft tissues, so they have no tissue in which to contract and stop bleeding as would occur in most places in the body. A ligature cannot be put around the vessel to tie it off. Consequently the bleeding must be stopped by applying pressure on it or by cauterizing the bleeding point.

Nosebleeds are often severe and require immediate attention. It is my personal belief that no one, anywhere in the country, sees the extremely severe nosebleeds that we have in this section of the country. Our altitude, low humidity, and sudden changes in atmospheric pressure probably contribute to the cause and severity of the nosebleeds we see.

The other day I was called to the hospital by another doctor to see a patient with severe nosebleed. I walked into the emergency room to see a 90-pound, 83-year-old woman holding an old-fashioned wash basin half filled with blood. It wasn't dripping out of her nose, it was pouring out in a stream.

A quick examination showed it was not from Kiesselbach's (or Little's) area on the anterior part of the septum, but was from

*Presented before the 88th Annual Session of the Colorado State Medical Society at Colorado Springs, September 24-27, 1958.

the posterior part of the nose behind a septum so crooked that I could not see the bleeding point. This patient had to have an immediate post-nasal pack, which stopped the bleeding.

Quick action important

Regardless of etiology, the bleeding must be stopped at once. How do you do it? Everyone has his own little system. Here is mine. I like to use a head mirror with an indirect light. It gives adequate illumination inside the nose and two free hands. An extension cord with a 150-watt clear bulb works fine. You can take it into any home. Other equipment includes a nose speculum, wooden applicators, cotton, nasal catheter, post-nasal pack, epinephrine (1:1000), tannic acid powder, Monsel's solution (mixed half and half with glycerin), assorted one and two-inch petrolatum gauze, and tongue blades.

First, the patient is asked to blow his nose gently on the bleeding side. This is to remove the clot, so you can see the bleeding point. If all the blood is not removed, twist some cotton loosely on the applicator and remove the excess blood clot, so you can see in the nose. A small suction tube is fine, if available, but if there is massive bleeding it will not remove the blood fast enough to see the bleeding point, whereas the cotton presses on the vessel, stops the bleeding temporarily and the bleeding point can sometimes be seen as soon as the applicator is removed.

Preferred control method

If the nose is free of clots, about 95 per cent of the nosebleeds are from a visible ruptured vessel in Kiesselbach's area on the anterior portion of the septum. With your nasal forceps, take a small piece of cotton, dip in the epinephrine solution and then into the tannic acid powder. This is placed firmly against the bleeding point and is left in place for five minutes—a little longer than normal clotting time. The cotton is then removed and if there is bleeding a new piece is applied. If the bleeding has stopped, the bleeding point is then touched gently with the Monsel's solution on a cotton applicator. This turns the area black.

The mechanism of these chemicals is that the epinephrine constricts the vessels, the tannic acid thromboses the vessel end, and the Monsel's solution causes edema of the tissues which seals the vessel beneath the mucosa.

Another method is to stop the bleeding with pressure by cotton soaked in 4 to 10 per cent solution of cocaine, then cauterize with a spark or actual cautery. However, bleeding must be stopped before the cautery is used, since vessels cannot be cauterized well through a pool of blood.

The above two methods have worked best for me, but other methods suggested are as follows: silver nitrate sticks, chromic acid bead, trichloracetic acid, 95 per cent phenol, oxidized cellulose, salt pork, hydrogen peroxide, thrombin, and submucous injection around the bleeder of saline, 2 per cent novocaine, 10 per cent phenol, sodium morrhuate, monoethanolamine and Sylnasol.

Nasal packs

All these things are fine if the bleeding point can be seen. If not, some form of nasal pack is necessary. Since most post-nasal bleeding points cannot be seen, a post-nasal pack is probably best. Most of this type of nasal bleeding is due to cardiovascular disease, and the bleeding point is found on the floor of the nose or behind the inferior turbinate near some of the larger branches of the sphenopalatine artery. A rather simple type of post-nasal pack can be used. For example, a 2 x 2 inch flat with two strings tied around the middle.

This post-nasal pack is applied by putting a small urethral catheter through the bleeding side of the nose, then reaching into the pharynx with a forcep and pulling the catheter out the mouth. Then tie one of the strings on the catheter and pull the pack back into the naso-pharynx and tightly into the posterior choana of the nose, usually pushing it up behind the soft palate with a tongue blade. If blood then still runs down the pharynx, a larger post-nasal pack must be used until there is no blood running down the pharynx.

If there is none, but still some blood coming from the nares, an anterior packing of one-inch petrolatum gauze, or cotton pledgets can be placed with pressure into the anterior nose as near the post-nasal pack as possible

to put pressure on the bleeding vessel and stop the epistaxis.

The two ends of the strings of the post-nasal pack are tied together and taped on the side of the face, one string from the nose, the other through the mouth. It is then easy to pull the nose string to put more pressure on the posterior portion of the nose if the pack comes loose and bleeding starts again. The string from the mouth makes it easy to remove the post-nasal pack two or three days later. I prefer to leave the post-nasal or anterior packs in place for 48 to 72 hours before removing. This gives enough time for the bleeding vessel to adequately thrombose. If bleeding starts again when the pack is removed, a new post-nasal pack is inserted.

At times, even with a post-nasal pack plus an anterior nasal pack, bleeding does not stop. Some irritant is necessary to cause enough swelling of the mucosa and submucosa to contain the bleeding vessel. Some use salt pork. Gauze, saturated with Monsel's solution, acts in the same manner and is easier to obtain and handle surgically.

Other therapy

If you must tie off the external carotid to stop the bleeding, remember that collateral circulation is good and it probably will be necessary to tie off both sides. Ligation of the anterior ethmoid artery may be necessary, if the bleeding vessel is superiorly located in the nose.

Some general and specific measures that may be given are: opiates, vitamin K, adrenochrome, blood, plasma, koagamin, vitamin C, rutin, bioflavonoids, ceanothyn, kutapressin, calcium, and estrogens.

Once the bleeding is stopped we can calmly go about checking the patient's blood pressure, do his blood work—C.B.C., bleeding and clotting time, prothrombin time, platelet count, etc., to find the etiology. We must try to find the cause to prevent what next time could be a fatal epistaxis. •

Symptomatic treatment of cerebral seizures*

Gene M. Lasater, M.D., Denver

Patient education plus proper drug selection and dosage are the keys to successful epilepsy management.

CEREBRAL SEIZURES ARE SYMPTOMS of abnormal activity of neurons. As with any other symptoms, the first duty of the physician is to search for the underlying cause. The differential diagnosis is not relevant to this discussion but may be found described elsewhere.[1] In many cases, the specific cause may not be found or, if it is, will not be amenable to definitive therapy. In all such cases, treatment must, of necessity, be symptomatic.

Explaining the cause and treatment

After diagnostic investigations have been completed and symptomatic therapy is to begin, it is most important that the doctor discuss with the patient and his family the nature of his disorder and the aim of treatment. Many patients today are medically sophisticated. They both desire and deserve an explanation of their symptoms in terms which they can understand. Patients are fa-

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miliar with scars from injury of the skin. When the cause of cerebral seizures is unknown, the doctor may point out that brain injuries also heal by scar formation and such injuries may have resulted from minor infections or head trauma in the past. Scars in the brain act as foreign bodies and disturb the electrical activity, producing dysfunction comparable to static on a radio. At times, this electrical disturbance becomes so great that clinical seizures result. Such an explanation is much more satisfactory to a patient than the mystifying and terrifying diagnosis of epilepsy.

The plan for treatment is then laid out. The patient is told of certain things he must avoid, and that drug therapy is mostly trial and error. Possible toxic effects of each drug prescribed are described. He is warned that he must never abruptly discontinue medication except on the advice of his physician. He may be reassured as to the improbability of seizures in his children, mental deterioration, addiction to the drugs, and his ability to carry on a relatively normal and useful life. Without such preliminary discussion, many therapeutic regimes are doomed to failure.

Types of seizures

The selection of anticonvulsant medication depends in part on the type of seizures to be treated. Hughlings Jackson[2] defined cerebral seizures as "occasional, sudden, excessive, rapid and local discharges of gray matter." This definition implies that all seizures have a focal origin, rather than sudden chaotic electrical disruption of the entire brain simultaneously. The clinical manifestations of the excessive discharge depends upon the location of the neuron initiating the seizure and the extent of the discharge spread. Neurons which are the site of seizure discharge are located in one of three areas: the cerebral cortex, the periamygdaloid area of the anterior temporal lobe, or the central nuclear masses and upper brain stem (an area which Penfield[3] refers to as the centrencephalic area). The site of origin of a given patient's seizures can usually be determined from clinical and electroencephalic data (Table 1).

The most important clinical point is the initial manifestation or the "aura" of the seizure. When the cerebral cortex is the site of origin, this will depend on where in the

TABLE 1

Site of origin	Clinical seizure	Ictal EEG	Inter-seizure EEG	Most effective drugs
Centrencephalic	Petit mal Myoclonic,	3/sec. spike-wave polyspikes-wave (bilateral, symmetrical and synchronous)	Normal or brief paroxysms of ictal pattern	Tridione Paradione Amphetamine Diamox Milontin Celontin Meprobamate
Periamygdaloid	Automatism	Bitemporal or diffuse abnormalities	Normal or anterior temporal spikes	Mysoline Mesantoin Dilantin Phenobarbital Celontin Mebaral
Cortical	As diversified as cortical function	Localized abnormality	Localized abnoramility	Mysoline Dilantin Phenobarbital Gemonil Mesantoin Mebaral Peganone Bromides

cortex the focus is located. Common clinical symptoms are clonic movements of a portion of an extremity or the face (motor cortex), abnormal sensation in a portion of an extremity or the face (sensory cortex), visual hallucinations of light or geometric figures (occipital cortex), turning of the head and eyes to one side (mid-frontal or occipital cortex), turning of the head and eyes to one side with flexion and abduction of the arm on that side (superomedial frontal cortex), vertigo or tinnitus (superior temporal cortex), loss of consciousness (prefrontal cortex).

Centrencephalic seizures are initiated by loss of consciousness. The entire seizure may consist of a brief "lapse" of consciousness (petit mal). They may also consist of brief bilaterally symmetrical clonic contractions of the extremities (myoclonic seizures) or a sudden contraction of the flexor muscles of the trunk may throw the patient to the ground ("akinetic seizure"). Centrencephalic seizures usually begin in childhood.

Seizures originating in the periamygdaloid area are often preceded by symptoms indicative of temporal lobe dysfunction. These may be perceptual delusions, such as macropsia or micropsia, olfactory hallucinations, specific auditory and/or visual memories, feelings of undue familiarity (deja vu), or of undue strangeness (jamas vu), or arrest of speech. The discharge often spreads to subcortical areas connected with both temporal lobes. A state of confusion and automatic behavior then ensues which might be comparable to "a temporary bilateral temporal lobotomy." This is the psychomotor seizure, during which the patient may exhibit purposeful behavior, which is, however, inappropriate for the particular circumstances.

Uninhibited spread of seizure discharge originating from any point may activate subcortical areas projecting to all parts of the cortex with a resulting major motor (grand mal) seizure. This type of seizure, therefore, is of no value for localization of the site of onset.

Drug specificity

Clinical studies, as well as observations in experimentally induced seizures, have shown that certain drugs are more effective against certain types of seizures than others.[4] Thus, the barbiturates, bromides, hydantoins and mysoline are most effective against seizures of cortical origin. The diones, amphetamines, succinimides and diamox are more effective against centrencephalic seizures. The most common mistake made in selecting the proper drug, according to the type of seizure, is the practice of regarding any minor seizures as being petit mal and, thus, of centrencephalic origin. True petit mal seizures are characterized clinically by only brief loss of consciousness, usually without falling and without any involuntary motor activity (with the exception of rhythmical blinking of the eyelids). These seizures are characterized electrographically by bilaterally synchronous three-per-second spike-and-wave activity. Unless a seizure meets both of these criteria, it cannot be classified as true petit mal. Other types of minor seizures which may originate from the cerebral cortex or the temporal lobe are usually not benefited by the dione group of drugs which is specifically indicated in the treatment of petit mal.

It is most important for the physician to be aware of the side effects and toxic symptoms that may occur from any drug which he prescribes. Some of the anticonvulsant medications, such as tridione, paradione, diamox and mezantoin, are potentially dangerous in that they have been known to produce bone marrow toxicity. When such drugs are prescribed, the white blood count should be checked monthly and, in addition, the patient should be instructed to report to the doctor with any unexplained fever, sore throat, bleeding, bruises or skin rash. All other things being equal, therapy should be begun with drugs associated with the least serious toxic effects. The more dangerous drugs are then reserved for those cases which do not respond satisfactorily to the least toxic medications.

Adequate dosage

Another important point in drug therapy is adequate dosage. The dosage of any anticonvulsant drug is inadequate if it fails to satisfactorily control the seizures. The dosage should, therefore, be increased until either the seizures are brought under control or

until symptoms of overdosage appear. Inadequate dosage is often a factor in therapeutic failures. Phenobarbital, for example, is often prescribed in homeopathic dosage. A recent study[5] has shown that dosage of 4 to 5 mg. per kilogram of body weight daily will produce blood levels of approximately 5 to 6 mg. per cent. Blood levels of this magnitude may be tolerated without undue side effects with prolonged administration since tolerance to the hypnotic effects of the drug develop with the passage of time. This study revealed that seizures which were refractory to the usual dosage were brought under control when the dosage was increased to these levels. Another recent study[6] showed that petit mal seizures which were refractory to the usual dosage of triodine were brought under control when this dosage was increased to two to three times the usual amount.

Since medication for seizures must be taken over long periods of time, the patient will be appreciative if the selected medication is prescribed in the least expensive form. For example, there is little advantage in prescribing the long acting form of phenobarbital, since it has been shown[7] that only small proportional fluctuations of plasma concentrations occur when the medication is taken in the usual divided daily dose regime. This is true, even when the medication is taken only once or twice daily, since the excretion of phenobarbital occurs so slowly that there is a reduction in plasma levels of only 11 to 23 per cent in 24 hours. There is, similarly, no advantage in prescribing delayed action forms of dilantin. This drug, when given in a single dose, produces a maximum blood level in 8 to 12 hours with a drop of 50 per cent in 24 hours; therefore, administration twice daily will provide adequate blood levels.

Precipitating factors

A careful history may indicate that the patient's seizures occur frequently in response to certain precipitating factors. Some of the more common of these are flickering lights, music, startle reaction, visceral tension such as a full bladder, and emotional crises. These should be pointed out to the patient in an effort to help him avoid them. He should also be cautioned about the ingestion of alcohol, cortisone, Thorazine, antihistaminics, or camphor, which drugs are known to lower the convulsive threshhold. In certain individuals, seizures occur only during sleep. It has been reported that, in such cases, the addition of small amounts of Dexedrine, amphetamine or Desoxyn[8] at bedtime may reduce the frequency of these nocturnal attacks. In women whose seizures occur most often around the time of their menses, an increase in their anticonvulsive medication at this time or placing them on a dehydrating regime with fluid restriction and diruetic drugs may sometimes be of benefit in reducing the frequency of such attacks.

Removal of a surgically accessible seizure focus should be considered when drug therapy fails. Anterior temporal lobectomy has been established as a beneficial procedure in seizures originating in this area of the brain.[3] Hemispherectomy may be indicated in children with infantile hemiplegia associated with intractable seizures.[3] In properly selected cases, surgery may produce dramatic and remarkable results.

Social stigma

For the patient with recurrent seizures, one of the most distressing aspects of his illness is the attitude of society toward "epilepsy." The frustration engendered in the patient by constant social rejection may actually be a factor in increasing the frequency of his attacks. One of the major roles of the doctor in the treatment of these patients is to help them meet these problems and overcome them. The falacious beliefs of the lay public that epilepsy is synonymous with mental deficiency and uncontrollable criminal impulses, must be dispelled. With proper treatment, 80 per cent of epileptic children can be educated in ordinary schools, and 80 per cent of adults with seizures can lead normal lives.[9] The experience of Epi-Hab in California has clearly shown that the work capacity of the seizure patient is just as great and the accident potential just as small as his more fortunate "normal" brother. It is the duty of every physician to strive for more complete acceptance of the seizure patient by his fellow men.

continued on next page

Summary

In the symptomatic treatment of cerebral seizures, the following points are important:

1. Explanation of the nature of his symptoms to the patient and his family.

2. Selection of the proper drug according to the type of seizure being treated.

3. Awareness on the part of the physician of the toxic side-effects of each drug prescribed.

4. Beginning therapy with the drug or drugs which have the least toxic potential.

5. Consideration of the cost to the patient of medications prescribed.

6. Teaching the patient to avoid factors which may precipitate his seizures.

7. Helping the patient to adjust to the social rejection engendered by his symptoms.

8. Consideration of surgical therapy for properly selected cases. •

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The art and science of medicine — through a patient's eyes

Paul Comly French*, Yardley, Pennsylvania

All physicians should have deep insight into patients' points of view — especially those of us who have not ourselves been patients. Here is an illuminating — and, in part, constructively critical — story from a patient who went through the mill. He, along with a few doctors, emerged as a wiser man!

FOR MORE THAN A YEAR I have had an interesting and, to me, unusual medical experience. I lost my middle vision and couldn't read newspapers, books, magazines, or mail or see traffic lights and had to be driven everywhere. During the year I met professionally, not socially, 10 physicians, four hospital laboratory technicians and directors, a dentist, an osteopath and an x-ray expert. The consultations were pleasant, the bills sizable and promptly presented and my sight became increasingly worse. But let me start at the beginning.

A year ago I was having increasing difficulty in reading newspapers and assumed my glasses should be changed. A local optometrist examined my eyes and told me they were in good shape, for my age, and that he probably could strengthen my glasses a bit. New glasses were produced in a day or so and at the end of the week I could read even less. Another examination took place, plus the thought that my problem might be diabetes or high blood pressure, inasmuch

*The author was formerly Executive Director of CARE and, as such, travelled extensively. Nelson Neff, Executive Secretary of the Nevada State Medical Association and an Associate Editor of this Journal, was associated with Mr. French during his years with the same organization.

as the eyes seemed organically sound. He suggested a check by a physician for these possibiilties. So I started on my rounds, not realizing at this point the many interesting medical associations yet to come.

Possible arsenic poisoning?

The physician assured me my blood pressure was normal for my age and there was no evidence of diabetes. He listened to the story to date and told me that he felt an eye specialist was indicated. He suggested an excellent man in a neighboring city and said he would be glad to make an appointment. Thus, I spent three hours having a complete eye examination with all the modern machinery that eye specialists use. I was told, when the examination was over, that my eyes appeared to be organically perfect but that the middle vision did not function which, by this time, was apparent to me. The specialist explained that in 90 per cent of cases similar to mine, the cause was arsenic or lead poisoning. He suggested some vitamins, which might or might not help, and return in a month for a further check. After a month my eyes again appeared organically sound, and he still felt that arsenic or lead poisoning was present. We discussed arsenic and lead poisoning and the fact that my only possible exposure was through the use of arsenate of lead dusting powder on a small vegetable garden.

My vision was becoming dimmer and the eye specialist suggested consultation in a larger city. I was examined by an eminent eye specialist, who, after several hours, told me that the eyes appeared to be organically sound and there *was* indication of arsenic or lead poisoning.

Toxicologist suggested

We started checking on laboratories who ran arsenic and lead tests and discovered almost none would undertake the arsenic test. A state police laboratory runs such tests, but they examine stomach tissues after a person has been murdered, presumably by arsenic. This seemed apropos of nothing, since I wanted to keep my stomach and hadn't been murdered! One of the eye doctors in a jocular vein asked whether my wife might be feeding me arsenic. I agreed to inquire when I got home!

A physician friend in another city arranged for a hospital laboratory to do an arsenic and lead test on a urine specimen. We did exactly as instructed, only to be informed that the specimen was not properly prepared and would have to be done over. This we discovered after a 70-mile drive in the pouring rain. A new specimen was prepared and taken to the hospital laboratory, and within 10 days my friend had a report from the laboratory which indicated lead in the urine. The technician had no idea whether the quantity was sufficient to cause a toxic condition. No attempt had been made to check for arsenic and the laboratory told my doctor friend it would be well for me to contact the city toxicologist through our County Board of Health. Through a devious route, the designated physician assured us that such tests were standard, his laboratory could do them, and he would send the proper container for blood and urine specimens. A local physician took a blood sample for me. Three weeks later the new report indicated lead in my system, but neither the later or earlier laboratory knew whether it was high enough to cause a toxic condition.

Abscessed teeth?

One of the physicians suggested that my teeth might be involved, so we did a series of x-rays and found a number of abscessed teeth and removed all but four or five. We were told that the water feed lines in our town were old and probably made of lead. With visions of Clare Booth Luce and the lead fresco on the ceiling of the American Embassy in Rome falling in her tea and poisoning her, I decided we had better check the water! The head of our local water works thought that the feed lines were probably lead, but a laboratory discovered that we had less lead in the water than the State Department of Public Health permitted. Possibly an attack of infectious hepatitis I picked up in Korea might have permanently damaged the liver. I learned of a young woman who had been in Scotland the preceding year, had an attack of hepatitis and had nearly gone blind. The physicians had prescribed sulphur and molasses, which she took and regained her sight. No local druggist could provide the right sulphur, but my two

sons drove 542 miles to obtain a case of sulphur water, than which nothing smells worse. If bad tasting and smelling is a sign of potency, it should cure anything!

Still working on the arsenic and lead theory, a professor at our State University who had spent years working with insecticides and arsenic and lead said the only way my garden dusting powder could have afflicted me would be in case I had eaten the insect powder by the spoonful. Someone suggested contacting an osteopath because the optic nerves might be pinched. An osteopath assured me there was nothing wrong with my nerves as far as he could tell, and that there was no point in returning for any further treatment.

Non-functioning gallbladder

A prominent internist gave me a complete physical examination and told me my heart was enlarged, known to me for five years. He also said my liver was enlarged, diseased and out of place, and drew a diagram on my chest to show me where it should be and where it actually was. The next morning, without breakfast, I had five laboratory tests which indicated that my liver was functioning at about 70 per cent of normal, sufficient to remove any toxins from the blood which would prevent oxygen going to the eyes. The internist suggested hepatitis, a bad heart, alcoholism, a non-functioning gallbladder and cancer as possibilities. We agreed on the heart and the hangover from the hepatitis as being facts but ruled out alcoholism. The day before gallbladder x-rays I had vanilla ice cream for lunch, a light supper, a series of dye pills, nothing to eat after dinner, two enemas and nothing but water until midnight. When the pictures were developed it turned out that the gallbladder was not visualized. After the same routine a day later, nothing again had been visualized. Either my gallbladder was a poor photographic subject or the photographer was a bit weak on his technics! The medical presumption was that the gallbladder was non-functioning. Asked whether an operation was indicated, they told me that this would take some consideration because of the condition of my liver. It was then suggested that a gastrointestinal series was indicated and this could be arranged with the same x-ray expert who had appraised the gallbladder.

Again I appeared without breakfast, consumed quantities of barium and had x-rays taken standing up and lying down. I was assured that all of this had nothing directly to do with my eyes anyway. We never did get around to the cancer examination and it could be that's the missing link. Other medical friends told me to be careful of the amount of fat I eat with a non-functioning gallbladder. But since then I have eaten sausage and bacon for breakfast, mayonnaise on tomatoes and other things of a fatty nature, without discomfort. I was probably a poor patient because of asking reasons for everything, though many physicians seem to prefer that patients accept their judgment without question!

Objects to hospital routine

As a hospital patient, I objected to being awakened to take my temperature at 6 or 6:30 and wait for a cold breakfast at 8:30 or 9! This seemed to me to be poor housekeeping and had little to do with medicine. When I asked why this was necessary, they told me that the night nurses have to wash patients before the day staff comes on. Is a hospital run as a service to the patients or for the convenience of nurses? I also objected to being awakened at 11 at night (after I had gone to sleep at 7) to be given a shot to make me sleep, apparently because these were the instructions on the hospital chart.

Psychosomatic

Could the whole thing be psychosomatic and could hypnosis be helpful? First, however, I should have a skull x-ray to rule out brain tumor or pressure on optic nerves. These films being negative, we started to hunt for conscious tensions that cause blindness as an escape mechanism. There is considerable medical history to show that people have gone blind, deaf or dumb as a result of subconscious pressure they did not know they had. We made lists of all possibilities which could cause unconscious tension, marital discord, finances, sex, age, a feeling of depression because of the loss of travel and intellectual stimulation, and being "buried"

in a small town with little outside associations except by correspondence.

Gradually it appeared to be forming a pattern and we came to the conclusion that my eye problems stemmed from a shift from a responsible position, world travel and association with stimulating persons, to an uneventful village life. Travel and association with interesting persons were arranged. A new pair of magnifying glasses were prescribed. With their help, plus new associations, I could read a little in the newspapers, parts of correspondence, and some material in magazines. Gradually, over a period of two or three weeks, I could read more each day and vision was becoming clearer. Considerable reading is now possible with my regular glasses, traffic lights can be seen a quarter of a block away, and driving again will soon be possible.

In summary, the entire train of events must have been psychosomatic and an escape from frustration in changing from a highly useful and stimulating position to uneventful existence. The experience brings me to the conclusion that medicine is not entirely a science but, in many cases and to most patients, more of an art! •

The neck-shoulder-arm syndrome

Paul R. Milligan, M.D., Salt Lake City

With or without a history of injury the emotionally unstable patient may develop the same intractable symptoms.

THE FREQUENT OCCURRENCE of the neck-shoulder-arm syndrome in office practice has stimulated a survey of office patients presenting this syndrome and reviews of other neck conditions for comparative studies. The neck-shoulder-arm syndrome is characterized by the following subjective complaints:

Symptoms

1. A burning, sickening neck pain, aggravated by movement of the neck but present whether the neck is moved or not.

2. Diffuse occipital, parietal and frontal headaches, which fluctuate with the neck pain.

3. A deep, burning "hot poker" type of pain which emanates from a definite point in the interscapular musculature. The most common locale is in the vicinity of the supero-medial angle of the scapula. After describing the pain as a red-hot poker being driven into the back, the patient may be hard pressed to locate it and may institute a diligent search, blinking his eyes as he seeks to put his finger on it.

4. Shoulder pain, which is likely to be diffuse. It may be accompanied by local tenderness. There may be considerable limitation of active shoulder motion but there is no limitation of passive shoulder motion until the late stages when periarticular adhesions have formed, secondary to disuse.

5. Arm and hand pain. This is diffuse and most often has a burning component.

6. Diffuse upper extremity weakness. The grip test, or any test of muscle power in the upper extremity involved, will demonstrate a reduction in the strength of the muscle contraction as compared to the normal side. The weakness may be rather profound, yet attempts to isolate the muscles involved are futile.

7. Sensations of numbness in one or both upper extremities. These are most often subjective only, and the patient may be surprised to find that he can actually feel the sharpness of pin pricks in the numb area. Occasionally, an apparently anatomic distri-

bution of the numbness is noted, such as the fourth and fifth fingers, with a strip passing along the ulnar side of the forearm. It is well to carefully record the area of numbness on a chart at the beginning of the examination and then try to verify it at the end. More often than not, the area of numbness has shifted in this period of time, or probably, to put it more accurately, the area of numbness is so ill-defined that the borders cannot be consistently outlined on successive examinations.

8. Upper extremity paresthesias. These sensations include bugs crawling on the skin, water trickling under the skin, feelings of constriction, and a subjective sensation of coldness.

9. Excessive fatigue is one of the most constant complaints. The patient gets up tired in the morning and stays tired all day. He consistently dates this fatigue from the onset of the neck-shoulder-arm syndrome, noticing no incongruity in the fact that the family doctor has for years been trying to combat the feeling of fatigue, using every trick in the bag; or that military service years ago gave him or her a medical discharge on the basis of neuro-circulatory asthenia.

10. Nervous tension. The patient attributes his tension to the intractability of his pain and to the fear that he is never going to get well. It is manifested by an inability to relax. The patient feels "tight on the inside." He is quick to anger. He finds it hard to concentrate.

11. Personality changes. These vary from a minor restlessness to what the husband or wife may describe as a complete change of character—always for the worse. He snaps at the children, fights with his wife, and alienates old friends.

Physical findings

Strictly objective physical findings are conspicuous by their absence in the early stages. The patient may wince with pain when the neck is moved by the examiner, and the patient may tighten up his neck musculature. Actual involuntary muscle spasm such as is found in a herniated disk is not present. On the other hand, evidences of nervous tension are common. They include fingernails chewed off to the quick, scars of slashed wrists from old suicide attempts, deep cigarette stains on the fingers, tremor of the outstretched hands and spontaneous crying spells during the examination. The abdomen often is scarred like a battlefield.

Objective physical findings appear later or as a result of complications. Failure to use the arm normally may result in disuse atrophy. Periarticular adhesions may form about the shoulder from disuse, limiting abduction and rotation. Vasomotor disturbances include excessive sweating, minor trophic changes in the skin of the hands, and a bluish discoloration of the fingers. This bluish discoloration may become intensified during the examination of the hands, only to fade later when the examination is directed to other parts of the body.

An interesting sidelight in the examination involves the presence or absence of callosities in the palms of the hands. They are seldom found in the severe syndrome. Their presence in the milder syndromes affects the prognosis favorably.

The syndrome is primarily one of middle-age. It is about this time of life that people begin to be aware of aches and pains traceable to lesions of attrition or to the orthograde posture. Most people ignore them or pass them off lightly, but in the neck-shoulder-arm syndrome, these same discomforts appear to be interpreted as intractable, agonizing pains which radiate far and wide.

No injury—normal x-rays

A group of 33 consecutive cases of neck-shoulder-arm syndrome were selected from my office files on the basis of the absence of a history of injury and with normal x-rays of the cervical spine. The histories which these patients gave were monotonously alike. They appeared to be interminable in detail. Usually the patient had searched his past, recent and remote, for an injury of some sort to account for the trouble. Too often to be incidental, an added strain had recently appeared in the patient's life. Evidences of excessive nervous tension were found. Accompanying the neck pain and undulating with it was a combined occipital, parietal and frontal headache. Interscapular pain often radiated from a single point and was likened

to that of a red hot poker. In my younger days, I surgically explored one of these "hot poker" spots, carrying my dissection to the rib cage. I found nothing abnormal, and a year later the spot was still as painful as ever.

The pain radiates from the supero-medial angle of the scapula and from the posterior neck to the shoulder and for varying distances down the upper extremity. Upper extremity weakness and subjective numbness, paresthesias, excessive fatigue and personality changes characterized the group. The past histories revealed migraine headaches, peptic ulcers, backache, coccygodynia, neurocirculatory asthenia, prescriptions for tranquilizers, etc. The system review tended to contain more complaints than usually found. The Cornell Medical Index revealed neurotic tendencies.

Neck injury—normal x-rays

One hundred consecutive charts were reviewed that were selected on the basis of a history of a recent neck injury, but with normal cervical x-rays. Fourteen of these presented histories, findings and clinical courses which were consistent with a diagnosis of a simple sprain of the neck. They had a stiff neck for from three weeks to six months, and they all made complete recoveries. They presented no problem in treatment.

The remaining 86 had similar injuries but they developed a neck-shoulder-arm syndrome indistinguishable from that seen in the non-injury group. Past histories and system reviews revealed similar findings in the two groups. The types of injury preceding the onset of the neck-shoulder-arm syndrome are listed in the accompanying table.

All types of injuries produced the same symptom complex. The man with the hot liquid splashed on his neck got as good a neck-shoulder-arm syndrome as those with the rear-end auto collisions. The common denominator was an episode producing a painful condition in the neck—not a specific type of organic pathology.

Cervical spondylosis

Twelve cases of cervical spondylosis were studied. These were selected on a basis of no history of neck injury and extensive hypertrophic changes in the x-rays of the cervical spine. Their presenting complaint was pain in the neck. Eight of these cases presented a neck-shoulder-arm syndrome indistinguishable from those with normal x-rays. Since the development of spondylosis is a part of the normal process of aging, it was considered to be an incidental finding.

Four cases presented a clinical picture so different that they could not be classed as neck-shoulder-arm syndromes. The pain was described as an aching, not burning, rheumatic-like pain, worse at night, relieved by activity, and with only a limited tendency to radiate. Therapeutic measures such as traction and Butazolidin gave striking relief. These cases were considered to be arthritic in nature, or possibly they represented mild nerve root compression.

Cervical fractures and dislocations

Thirty-five cases of cervical fractures or dislocations were reviewed as a comparative series. Most of the patients had varying degrees of motor and sensory defects. The motor weaknesses were patchy and could be traced to one spinal level or to one or two nerve roots. The sensory defects were characterized by a tendency to follow known patterns and to be distinct enough to be consistent on different examinations. The pain radiation tended to follow the patterns which Finestein[1] and others have mapped out by injecting a painful substance into various parts of the neck. The prevailing tone of the clinical picture was one of loss of function. Pain was secondary. This contrasted sharply

Injuries preceding neck-shoulder-arm syndromes

Rear-end auto collisions	37
Object fell, striking head	10
Auto struck from side	10
Auto rolled over	8
Head-on auto collision	7
Fall while walking on the level	5
Fall from height	5
Bumped head on overhead object	2
Bucking dump truck	1
Hot liquid splashed on neck	1

with the neck-shoulder-arm syndrome in which pain of an agonizing, demoralizing type overshadowed everything else.

A number of possible organic lesions which might trigger a neck-shoulder-arm syndrome were considered. The first possibility considered was a tear of the annulus fibrosis, which would later cause disk thinning, hypertrophic spurring and neck symptoms. Several years ago, I opened up about a dozen dogs' spines, punched a small hole in one of the lumbar intervertebral disks, and then sewed the animal up. A year later, large spurs were invariably in evidence at the level of the damaged disk.

Patients with neck injuries who developed neck-shoulder-arm syndrome were invited to return to my office for repeat x-rays, at my expense. Twenty-two patients accepted this offer. The repeat x-rays represented a time interval of from one and one-half to 12 years from the date of the neck injury, the average time being three and one-half years. None of these cases showed disk thinning or hypertrophic spurring which was not present on the original films.

Gershon-Cohn[2] and associates produced whiplash injuries in fresh cadavers and then dissected the neck. They found tears in the ligamentum nuchae or fractures of the spinous processes of the 6th and 7th cervical vertebrae. They related these ligamentous tears to small calcified masses, occasionally demonstrated in x-rays of patients with a history of an old neck sprain. They state that the symptoms are mild.

A case has appeared in my office with a neck injury sufficiently severe to fracture the 6th and 7th cervical spinous processes. We discovered that three months after the injury, the patient had no muscle spasm in his neck, no limitation of motion, and no pain.

Pressure on the scalene muscles on the neurovascular bundle has been postulated as the cause of a brachalgia, but section of the scalenus anticus muscle for relief of subjective symptoms has been weighed in the balances of clinical experience and found wanting.

The following table summarizes useful points in differentiating the tension-based neck-shoulder-arm syndrome from organic lesions:

Organic	*Neck-shoulder-arm syndrome*
No nervous tension	Lots of nervous tension
Fatigue not a complaint	Excessive fatigue
Personality changes not remarkable	Personality changes are striking
Muscle weakness is patchy	Muscle weakness is diffuse
Sensory defects are constant	Sensory defects vary
Localized muscle atrophy may develop	Muscle atrophy, if present, is diffuse
Neurologic charts of value in localization	No localization possible
Pain not prominent	Pain dominates picture
Pain radiation follows known patterns	Pain radiates far and wide
Autonomic components of pain minor	Pain is burning, sickening, nauseating, demoralizing

The following table enumerates some suggestions as to treatment:

Treatment	*Things to avoid*
Rest	Use of unwarranted frightening terms such as whiplash or slipped disk
Mild sedation	Constant fixation of patient's attention on his neck by a brace
Friendly reassurance	Legal hassles

Conclusions

1. The neck-shoulder-arm syndrome bears little resemblance to the clinical picture of a fractured or dislocated cervical spine, torn ligament, herniated cervical disk, hypertrophic arthritis or a simple neck sprain.

2. No significant difference in the symptom complex of the neck-shoulder-arm syndrome was noted among the various types of injuries preceding its onset.

3. No significant difference was apparent in the symptom complex of those giving a history of an injury and those without such a history.

4. A pre-existing emotional instability was found.

5. Injury appeared to play an insignificant etiologic role. Nervous tension appeared to be the major etiologic factor in both the injury and non-injury groups. •

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Speech defects following adenotonsillectomy

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OCCASIONALLY AFTER ADENOTONSILLECTOMY a child will manifest an inadequate velo-pharyngeal closure and thus exhibit hypernasal speech similar to or identical with the hypernasal speech of a child with a cleft palate. When a child is brought back to the office seven to 14 days after operation, the parents will show concern about the child's speech and will want an explanation. Reference to textbooks may be an erroneous step as too often this condition is attributed only to "rough manipulation of the palate" during the operation. The surgeon, on the other hand, may attribute each of these conditions to a protective mechanism on the part of the child and pass it off lightly, saying that as soon as the sore throat disappears the speech will return to normal. Several weeks later he may be faced with an embarrassing situation of a child who still cannot enunciate clearly "g" sounds as in "good" or "k" sounds as in "key" or "cat." Much of what is discussed in the ensuing paragraphs not only applies to adenotonsillectomy but also to cleft palate surgery, uvulectomy, surgery for repair of traumatic wounds of the soft palate, the lateral and the posterior pharyngeal walls.

Anatomy and physiology

Closure of the velo-pharyngeal orifice on swallowing or in valving of the emitting air column so as to form such consonants as "g," "c" or "k" and thus form spoken words is affected by a combination of muscle actions. Controlling the soft palate and uvula are the levator veli palatini, the tensor veli palatini, the palato-glossus and the palatopharyngeus muscles on each side plus the muscle of the uvula. The posterior pharyngeal wall bulges forward by contraction of the superior constrictor muscle of the pharynx in a mound known as Passavant's ridge. Contracture of the lateral pharyngeal walls toward the midline is affected by the superior pharyngeal constrictor muscles and also the stylopharyngeus muscle. Thus the total effect of these muscle contractions is a sphincter-like closure of the velo-pharyngeal orifice to the nasopharynx. Any condition interfering with complete closure of this sphincter will result in escape of air through the nose via the nasopharynx and impair or inhibit clean-cut valving necessary to make clear, concise "g" and "k" sounds. Hence, hypernasal or so-called cleft palate speech results. continued on next page

Etiology of inadequate velo-pharyngeal closure after adenotonsillectomy

I. *Poor development of the soft palate from disuse.*

A child born with hypertrophied, obstructive adenoids or developing such a condition at an early age will develop obstructed nasal breathing and thus mouth breathing. This in turn leads to a lack of stimulation to growth of the external nose, hard palate, soft palate, and related structures. Otolaryngologists have for many years recognized that mouth breathing leads to a small, underdeveloped external nose, buckling of the nasal septum due to an unequal rate of growth between the nasal septum and the external confines of the nasal cavity, a high arched hard palate, and dental malocclusion with overjet of the upper teeth. However, another phenomenon occurs which isn't general recognized; i.e., when there is a huge mass of adenoids protruding forward and downward so as almost to contact the supero-posterior aspect of the soft palate at rest, the palatal musculature does not have to do much work to effect a velo-pharyngeal closure. Therefore, a poorly developed soft palate from disuse occurs. Prior to adenoidectomy such a patient may show a high pitched, squeaky, babyish voice with a high degree of hyponasality. If the surgeon does not know these facts or fails to recognize them and goes ahead with an adenotonsillectomy without warning the child's parents that hypernasal speech may temporarily result from relieving the nasopharyngeal obstruction, the surgeon may be accused of rough surgery or some technical accident. When this condition is anticipated the parents can be warned that hypernasal speech may temporarily occur following adenoidectomy but that the situation will be remedied as soon as the musculature of the soft palate and pharynx is strengthened by exercise. The longer the nasopharyngeal obstruction has existed, the longer the period of time will be required to overcome the palatal weakness by exercise. Adenoidectomy should not be avoided or incompletely done because of this danger. Speech defects from this cause seldom persist more than a few weeks.

II. *Creation of a larger than normal nasopharynx.*

The adenoids are a natural part of the nasopharynx. Removal of the adenoids creates a nasopharynx larger than normal. Because of this fact inadequate velo-pharyngeal closure can occur without any other defect being present. It takes time for the palatal and pharyngeal musculature to compensate for this new situation. However, if another defect is present such as a congenitally short or deficient palate, a repaired cleft palate, or an underdeveloped palate from prolonged disuse, the palatal and pharyngeal musculature may never completely compensate for the extra load thrust upon it.

III. *Congenital palatal insufficiency.*

This condition includes the congenitally short soft palate, the hidden or submucous cleft palate with a short soft palate, and just congenitally deficient muscle and nerve development of the soft palate. These children have so-called "lazy palates." These palates show sluggish or poor muscle contraction on phonation. Many of these deficiencies can be seen before surgery by observing the muscle action of the palate on saying "ah," estimating the distance from the palate to the post-pharyngeal wall, palpation of the hard palate to see if a submucous cleft palate exists or if the posterior palatal spine is replaced instead by a notch, and in doubtful cases having x-ray studies of the nasopharynx done using cephalometric principles and technic. Adenoidectomy serves to bring to light a congenital palatal insufficiency. It is far better to anticipate the condition before surgery than to "discover" it postoperatively when a hypernasal speech defect already exists.

IV. *Trauma to palatal and pharyngeal musculature.*

Injuries to the soft palate may occur in adenoidectomy from stretching or tearing the palatal muscles in attempts to palpate the adenoids or nasopharynx with a finger or expose the nasopharynx to view with a retractor. This is more likely to occur if adenoidectomy is attempted before anesthesia is deep enough to completely relax the palatal and pharyngeal muscles. It is the author's opinion that in doing an adenoton-

sillectomy, the surgeon should wait until complete relaxation of the palatal and pharyngeal musculature occurs, and the swallowing reflex is abolished. Then by doing the adenoidectomy first, he can proceed to the tonsillectomy as anesthesia lightens because complete relaxation is not as necessary for a tonsillectomy.

Another accident that may occur in adenoidectomy is damage to Passavant's ridge on the postpharyngeal wall. This ridge is formed by the upper border of the superior constrictor muscle of the pharynx. It is only obvious when anesthesia is light and swallowing reflex is present. If adenoidectomy is done during this stage of anesthesia, a section may be gouged out of Passavant's ridge with an adenotome, punch, or curette, or "stripping" of the postpharyngeal wall may occur. This can destroy the sphincter-like action of the superior constrictor pharyngeal muscle and result in incomplete velo-pharyngeal closure on phonation leading to hypernasal speech.

V. *Reflex inhibition of the velo-pharyngeal sphincter.*

A temporary hypernasal speech defect may result merely from a reflex inhibition of the muscles of the palate and pharynx from pain. This phenomenon subsides rapidly as sore throat subsides.

VI. *Emotional or psychologic factors.*

Occasionally the child with reflex inhibition of the velo-pharyngeal sphincter from pain learns to cultivate a "protected" speech because of emotional and psychologic reasons and a desire for attention. Actual hysteria may be present. The child recovers his ability to speak normally if his emotional problem is properly met.

VII. *Neurologic disorders.*

Inadequate velo-pharyngeal closure may result from palatine neuritis with muscle weakness or paralysis due to polio virus, a neurotropic influenzal virus, and toxins from Klebs-Loeffer bacillus. Frequently the muscle weakness or paralysis may follow immediately after adenotonsillectomy and take many weeks in recovery. Permanent paralysis may occur from polio and neurotropic viruses with permanent speech defect. The adenotonsillectomy can certainly be regarded as the means by which a portal of entry was provided to the virus.

Conclusion

1. In order to avoid the unpleasantness of coping with a hypernasal speech defect following adenotonsillectomy, the surgeon can often be forewarned.

2. Always beware of the child who talks with a high-pitched, squeaky, pinched voice.

3. Parents should be cautioned that a temporary speech defect may result from adenotonsillectomy done on the child with prolonged and severe nasal obstruction, especially if other stigmata of arrested development of the nose, hard palate, and upper alveolar arch are present.

4. Observing the motion of the palate and palpating the hard palate for bony defects before surgery may save much embarrassment postoperatively.

5. Adenotonsillectomy should be avoided if poliomyelitis is present or if influenzal viral infections with a strong neurotropic tendency are prevalent.

6. Adenoidectomy should not be started until anesthesia is deep enough to abolish the swallowing reflex and all muscular motion of the palatal and pharyngeal muscles has ceased.

7. The more complete and thorough the adenoidectomy the greater the chance for a temporary speech defect. •

Nebraska Heart Association's Scientific Conference

The 1959 Nebraska Heart Association's Scientific Conference will be held at the Blackstone Hotel in Omaha, October 1-3, 1959. Speakers include Dr. Edgar A. Hines, Jr., of the Mayo Clinic, Dr. Arthur C. Corcoran, St. Vincent's Charity Hospital, Cleveland, Ohio; Dr. John H. Moyer, Hahnemann Medical College in Philadelphia; Dr. Travis Winsor of St. Vincent's Hospital, Los Angeles; Enrique Cabrera, M.D., National Heart Institute, Mexico City; and Drs. Jerome Murphy, Delbert Neis, John L. Barmore, Denham Harman, and Alfred Brody, all of Omaha.

Management of hypotension associated with general anesthesia*

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A fall in blood pressure could be due to one of many causes. It is important to know the exact cause so proper correction may be instituted. Blind use of vasopressor drugs is dangerous.

THERE IS PROBABLY NO OTHER AREA IN MEDICINE where the normal homeostatic forces of the body are subjected to such a variety of stress over a relatively short span of time as in the surgical patient under general anesthesia. To add to the insult we abolish many of the body's protective mechanisms.

To anesthesiologists, the blood pressure is one of the best monitors to determine the condition of the patient. Many people administering anesthetics are prone to treat hypotension with a vasopressor without attempting to determine the cause and to correct it. In discussing hypotension, we must remember the mechanisms which maintain the blood pressure; namely, cardiac output, peripheral resistance, elasticity of vessels, and viscosity and volume of the blood. We must further remember that there is a normal inspiratory - expiratory variation in blood pressure in which the systolic reading may vary as much as 70 millimeters of mercury.[1]

*Read before the Anesthesiology Section of the Annual Session of the Colorado State Medical Society, September 26, 1958.

Variations in blood pressure

Our present method of measuring blood pressure is an indirect one. The method of Riva-Rocci actually measures the pressure inside an air cuff necessary to obstruct blood flow in the artery of an extremity. The pressures measured therefore are altered by the intervening tissues. In studies under hypotensive anesthesia where both an arm cuff and a strain gauge (intravascular) determinations of blood pressure were made, it was found that the actual fall in arterial blood pressure was significantly greater than that which could be measured by the arm cuff method.[2]

In order to recognize hypotension we must know what is normal for a given individual. This is not necessarily the admission pressure on the hospital chart, nor the immediately pre-anesthetic blood pressure. There can be no substitute for adequate preoperative evaluation of the patient. Not only are we appraised of the patient's general condition, but also of his or her emotional makeup and general mood. Of further help can be a note from the patient's physician appraising us of the condition of the patient's heart and circulatory system. Many internists suggest that we "avoid hypotension" without detailing the general status of the patient's circulatory system and the amount of insult it might safely withstand. The status of the blood and correction of deficiencies wherever possible may well prevent a drop during surgery. The evaluation should

include not only hemoglobin and hematocrit, but, where indicated, blood volume (especially in old people) and electrolyte studies. In patients with deficient blood volumes or acid-base imbalance we may abolish their compensating mechanisms with anesthetic induction, and this will be made apparent by a drop in blood pressure. Evaluation must also include a knowledge of what medicines the patient is or has been taking. Tranquilizers, ganglionic blocking agents, and cortical steroids are of prime concern.

Premedication

After evaluating the patient, we generally leave sedation orders. Thus begins the anesthetic management of the patient and the interference with the normal blood pressure. Opiates, barbiturates, antihistamines, and tranquilizers are currently being used as premedicants. All of these have the property of lowering blood pressure. The general condition of the patient must be considered in ordering premedicants, especially in the aged, debilitated, or seriously ill patient where a little premedication may be excessive.

Having depressed the homeostatic mechanisms of the body with premedication, we proceed to anesthetize the patient. All anesthetic agents are general depressants and thus depress the circulation. The depression is primarily one of the myocardium, but also involved is the vasomotor center and its effector bodies as well as the peripheral blood vessels. The cardiac output is diminished either by poor return to the heart or depression of the myocardium. Peripheral resistance and elasticity of the vessels are affected by diminished or absent muscle tone or by a direct depressant action which produces peripheral vasodilitation. We must further take into account the effect the patient's apprehension may have had on his blood pressure.

Positioning hazards

Once the patient is asleep, it often becomes necessary to position him. He may be placed in the prone position with direct pressure on his chest, in the lateral position and hyperextended, or the sitting position. The surgeon may feel it is further necessary to elevate the kidney bar or flex or extend the table. All of these changes, some of which just because a change is made and others because of compressing, bending and otherwise interfering with the normal tissue, organ and vessel arrangement, cause drops in the blood pressure. Particularly dangerous are those changes which produce peripheral pooling of the blood, such as the sitting position; compression of the vena cava diminishing return to the heart as in the kidney position; or compression of the chest interfering with respiratory movements and again diminishing cardiac output, as in the prone position.

Once surgery has begun, new causes for hypotension occur. Changing depths of anesthesia, combinations of anesthetic agents and ancillary drugs including the addition of relaxants may act adversely on the blood pressure. Positive pressure respiration by interference with the normal circulatory mechanisms and abolition of the negative phase of respiration may depress the circulation. This depression can be quite profound in patients where there are other conditions of circulatory depression. The degree of circulatory depression is related to the mean airway pressure.[3]

Autonomic reflexes

There are numerous reflexes mediated through the autonomic nervous system which may cause sudden severe drops in blood pressure. These reflexes may be stimulated by traction on the eye, pelvic organs, bowel or pulmonary hilus; or they may arise from irritation of the pleura, peritoneum, or periostium. They are most likely to occur during light anesthesia and in the hypoxic or hypercapnic patient.[4]

Various other surgical manipulations may serve to lower the blood pressure. Removal of large abdominal tumors or rapid drainage of ascitic fluid may suddenly lower a previously high intra-abdominal pressure with a resultant arterial hypotension. The weight of intra-abdominal masses such as the gravid uterus may produce hypotension in certain postures because of obstruction of venous return to the heart. Similar effect can be produced by packs and retractors against the veins.

All of us are aware of the effect of blood

loss on blood pressure, especially once the compensatory mechanisms of the body are exhausted or depressed. Constant awareness of the stage of the surgical procedure along with a continuing estimate of blood loss is vital.

Anoxia and asphyxia may produce a fall in blood pressure. This may occur because of improper oxygenation either because of mechanical deficiencies of our apparatus, or because of pharmacologic or mechanical interference with, or pathologic states affecting oxygen transport in the body.

Postoperative period

As the end of the operation nears and in the immediate postoperative period, new causes for hypotension occur. Tourniquets may be removed. The patient may be returned to more normal positions or moved from the operating room. Falls in blood pressure at this time have been postulated to be due to peripheral pooling of blood and possibly stimulation of cutaneous or proprioceptive reflexes. The stimulus of surgery is removed, and this may affect the blood pressure to some extent.

Changes in level of anesthesia along with removal of the patient from the closed circle absorption system play an important role. "Cyclopropane shock" is an example which it is postulated is due to the return to normal from an elevated arterial carbon dioxide secondary to inadequate pulmonary ventilation during surgery. This can and does occur with methods and agents other than cyclopropane. Other factors which can produce a hypotension along with the removal of the anesthetic is a reduction in respiratory resistance, reduction in temperature and humidity of the inspired air and reduction in oxygen concentration. There also occurs a diffusion anoxia especially following nitrous oxide anesthesia because of the difference in diffusion rates of nitrous oxide and nitrogen across the alveolar membrane with a resulting decrease in alveolar oxygen concentration.

Inadequate blood loss replacement or a continued oozing from the operative site may become evident at this time. Adrenocortical insufficiencies become apparent most frequently in this immediate postoperative period. Here is a hypotension which is refractory to usual therapy and must be recognized and treated.

Another frequent cause of hypotension in the immediate postoperative period is overzealous sedation. Not infrequently seen is an arousal excitement state for which the patient is given a full dose of sedative. A drop in blood pressure follows. Also misinterpreted is the apprehension and excitement occuring in the anoxic patient (whether because of deficient blood volume or other causes) for which a sedative is given to "quiet" him, with dire results. Obscure and difficult to diagnose are the hypotensions which result from a myocardial infarction, cerebral or pulmonary embolism occurring in the anesthetized patient.

Preventive treatment

A knowledge and understanding of the causes of anesthetic and operative hypotension should make treatment fairly simple and obvious. Treatment can be divided into two types—preventive and corrective. Preventive therapy should be the easier. It requires time and thought. Adequate preoperative evaluation of the patient with correction of deficiencies, elimination of unnecessary drug therapy and addition and supplementation with necessary drugs whenever and wherever possible, is necessary. This includes correction of anemias, prothrombin deficiency, deficient blood volumes, and electrolytes, as well as elimination of vasodepressor drugs, anticoagulants, and tranquilizers, if possible. We must maintain corticosteroid and other hormonal and drug therapy necessary for the normal functioning of the patient.

Preoperative sedation should be sufficient to calm the patient without also anesthetizing him. The aged, debilitated, or shocky patient should be sedated lightly, if at all.

Induction of anesthesia should be smooth but with care to avoid excessive amount of drug. Again the physical status of the patient is important, but also to be considered is the effect of premedication. The attainment of the desired depth of anesthesia must be done gradually and monitored by watching the blood pressure. We must not be rushed by an impatient surgeon or a tight schedule. Too rapid induction may produce vascular col-

lapse. Depth of anesthesia must be governed by the response of the patient.

Correct positioning

Moving and positioning of the patient must be done gently, smoothly, and gradually; maintaining the heart on a given axis whenever possible. Compression of the chest is to be avoided. A patient in the prone position can be well supported by long pillows or rolls along each side, supporting him at the shoulder and at the anterior iliac crests. Elastic bandages may prove beneficial in preventing peripheral pooling which occurs with changes in position, prolonged procedures, or in the aged and debilitated patient. Positions where these bandages are indicated include sitting and Fowlers where the pooling may occur during the procedure or lithotomy in the postoperative period. Extreme Trendelenburg and hyperex tension are to be avoided. The surgeon must be willing to compromise should the desired position interfere with vascular dynamics to such an extent that the patient's life is endangered by a low blood pressure.

Gentleness on the part of the surgeon and maintenance of adequate depth of anesthesia can prevent many of the autonomic reflexes. There is evidence that these reflexes are more prone to occur under light anesthesia.

As soon as it is determined that blood replacement therapy will be necessary, blood should be started. This can only be done by familiarity with the procedure and an eye on the operative field, the suction bottle and the sponge rack. An adequate size needle (18 gauge or larger) is mandatory if blood replacement is to be effective.

Constant awareness of the condition of the patient's airway and amount of pulmonary exchange as well as the condition of our carbon dioxide absorption material will tend to prevent anoxia, asphyxia and hypercarbia. Properly controlled or assisted respiration will not only help to prevent hypotension during the course of the operation but may well serve to prevent postoperative hypotension. The adjustment of the anesthesia to the stage of the operation can also serve to have the patient free of the effects of muscle relaxants and well on the way to being awake at the end of surgery. In the postoperative period, gentle handling of the patient along with judicious use of sedatives and maintenance of adequate oxygenation can do much to prevent hypotension.

Corrective therapy

Corrective therapy can be subdivided into two topics: first, removal and correction of the cause and, second, supportive therapy until such time as normal body mechanisms can take over, or correction of the cause can be obtained. Here recognition of the cause of hypotension is of prime importance. Removal and correction can include the use of narcotic antagonists if the patient has been heavily sedated with opiates. Anesthesia can be lightened or changed to milder agents. The patient's position can be corrected, kidney rests lowered, and extremes of posture modified.

Reflexes, airway problems and blood

The stimulus of a given reflex can be removed by requesting the surgeon to stop momentarily. Deepening of the anesthesia may prevent recurrence. The pathways can be blocked with local anesthetic agents in the area of the stimulus, or vagal blocking agents may be given intravenously. A small dose of vasopressor may be necessary to raise the pressure. The anesthesiologist can correct his mode and method of controlled respiration or change to assisted spontaneous respiration. Airway problems can be corrected as well as oxygen and anesthetic agent concentrations. Blood and fluid replacement should be begun. Drug and hormone therapy should be instituted if indicated. Vasopressors are indicated for treatment of "cyclopropane shock" and similar conditions, once general supportive therapy such as slight Trendelenburg position and oxygen are instituted, and other causes of hypotension are ruled out.

Vasopressor drugs

The discussion of vasopressor agents has been left to last. Their use should be relegated to the field of supportive therapy until such time as the normal body mechanisms are again functioning; that is, until such a time as the cause of the hypotension can be removed or otherwise corrected or, on occasion, to hasten the return to normal pressure.

continued on next page

In selecting vasopressor drugs for use in anesthesia we must establish certain criteria. We desire a drug whose action will tide us over the emergency situation; thus it should in most circumstances be relatively short-acting. The action must be predictable. It should restore the circulatory system as nearly as possible to the pre-hypotensive state. It must be administerable intravenously. The agent must be compatible with the anesthetic agents and methods which we are using, especially in regard to the action on the heart. It is also desirable that the agent should not increase the body's demand for oxygen over what might be required for the increase in blood pressure. Our commonly used vasopressors are sympathomimetic agents, many being quite similar to epinephrine.

As a general rule we should limit ourselves to two or three drugs, the action of which we are thoroughly familiar. In evaluating new agents, we look for a drug as good as, or better, than any existing drug. The most commonly used and recommended drugs are ephedrine, methoxamine (Vasoxyl), phenylephrine (Neosynephrine), and norepinephrine (Levophed). The first three have minimal effects on cardiac rhythmicity even in the presence of cyclopropane. They can be safely used in treating most hypotensions occurring in connection with anesthesia. The pressor substances may be grouped according to primary site of action. Ephedrine's primary action is one of increasing the strength of cardiac contraction; whereas, methoxamine, phenylephrine, and norepinephrine increase arteriolar and venous tone.

Norepinephrine is a most valuable but also a most dangerous and potent agent. Its routine use without first determining the cause of the hypotension can be dangerous. It can produce the same serious arrythmias as epinephrine in the presence of cyclopropane. Of further consequence is the profound vasoconstriction which it can produce to the point of creating a pulseless black extremity in the presence of an intra-aortic hypertension.

Vasopressor agents are useful in producing a more normal blood pressure where the patient's pressure has been depressed by preoperative medication. A single dose of vasopressor will bring the pressure up should the pressure fail to revert to pre-hypotensive levels once the positioning of the patient has been corrected, the stimulus of the autonomic reflex removed, or corrections made in anesthesia, oxygenation, etc. Vasopressors may also be indicated to maintain blood pressure until such time as adequate blood replacement can be accomplished or until the cause can be corrected.

Summary

In conclusion, I feel that adequate preoperative evaluation of the patient, with conservative careful anesthetic management is our best treatment of hypotension associated with anesthesia. Should hypotension occur, the cause should be determined and treated. Use of vasopressors should be to supplement adequate treatment of the cause of the hypotension. Care in the selection of vasopressors to be used in the presence of anesthetic agents should be emphasized. •

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As you like it . . . cont. from page 29

positive (regitine) test in a considerable number of patients with essential hypertension, and that one can't rely on such a test as a diagnostic procedure, but merely as an indication that further investigations are required. An elevated blood urea predisposes to false positive tests." Ibid.

11. "Piperoxane ('Benzodioxane'), which used to be used, is highly dangerous and we have given it up. In patients with essential hypertension the blood pressure may rise and I have seen a severe attack of pulmonary edema precipitated by benzodioxane." Ibid.

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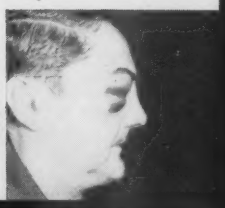
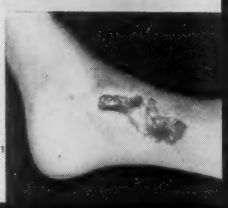


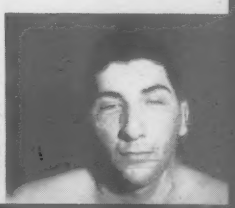
VARICOSE ULCER

15 years duration ... resolved with VARIDASE[1]



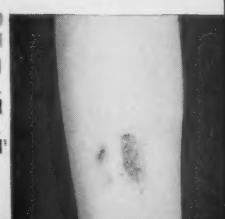
INFLAMMATORY DERMATOSIS

rapidly spreading rhus dermatitis healed within a week[1]



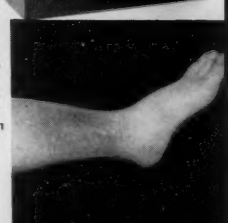
INFECTED LACERATION

marked reversal in 3 days... returned to school... closure advanced[1]



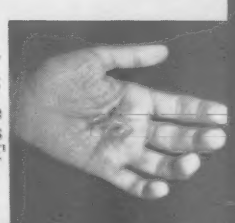
THROMBOPHLEBITIS

back on his feet in a week after recurrent episode[1]



REFRACTORY CELLULITIS

normal routine resumed after 4 days of VARIDASE[1]



THE WASHINGTON SCENE

A monthly news summary from the nation's capital by the Washington Office of the A.M.A.

The House Ways and Means Committee has put aside until next year the so-called Forand bill which is opposed vigorously by the medical profession.

But supporters of the legislation have made clear that they will press for action by Congress next year when politics will be paramount because of the presidential and congressional elections in November.

The Ways and Means Committee took no action on the legislation after five days of hearings highlighted by the Eisenhower Administration lining up with the medical profession in opposition to it.

Arthur S. Flemming, Secretary of Health, Education and Welfare, told the committee that "it would be very unwise" to enact such a bill. He warned of "far-reaching and irrevocable consequences." It would freeze health coverage of the aged "in a vast and uniform government system" and would mark the beginning of the end of voluntary health insurance for old persons, he said.

Secretary Flemming later promised to report to Congress early next year on possible alternatives, including federal subsidies to private carriers of health insurance for the aged. But he took no position on any of the alternatives for the time being.

Summing up the hearings, Dr. F. J. L. Blasingame, Executive Vice President of the A.M.A., said:

"It was shown that it would be most unfortunate for the federal government to move in for political reasons and attempt in a compulsory fashion to solve by legislation problems which are being thoughtfully considered at the state and local level by the medical profession and other dedicated members of the health team."

Main support for the bill, which was sponsored by Rep. Aime J. Forand (D., R.I.), comes from organized labor. The legislation would increase Federal Social Security taxes to finance hospital, surgical and nursing home care for Social Security beneficiaries.

Although this bill has been shelved for the time being by the House Committee, the problems of the aged are being studied by a Senate Subcommittee headed by Sen. Pat McNamara (D., Mich.). The Subcommittee on Problems of the Aged and Aging of the Senate Committee on Labor and Public Welfare has held public hearings inter-

mittently in Washington. It also planned to hold hearings in various other cities.

In his second appearance before the Senate Subcommittee, Dr. Frederick C. Swartz, Chairman of the A.M.A.'s Committee on Aging, reported that state and local medical associations "have moved promptly" to make the A.M.A.'s six-point "positive health program" for the aged "an effective and workable instrument."

Dr. Swartz said that the problem of financing health services for the aged is "a temporary, not a permanent one" because "each year, more and more of the Americans who are reaching 65 are covered" by voluntary insurance.

Democrats in Congress cut back their housing program further after President Eisenhower vetoed a $1.4 billion bill. Starting with a $2.1 billion program, Democrats came down to the $1.4 billion figure in an effort to avoid a veto although it was a more expensive program than Mr. Eisenhower wanted.

After the President vetoed this bill anyway, Democrats came up with a $1 billion bill which retained three provisions of interest to the medical profession.

They would: 1) provide construction loan guarantees by the Federal Housing Administration of up to 75 per cent of the cost of proprietary nursing homes; 2) authorize $25 million in direct loans for construction of housing for interns and nurses, and 3) authorize a $50 million revolving fund for direct loans to help private nonprofit corporations build rental housing for the elderly.

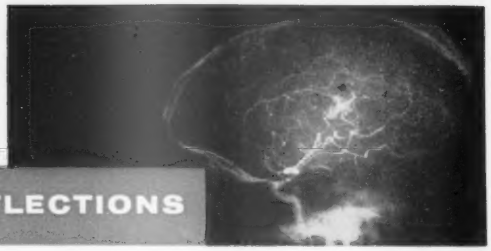
Congress voted a compromise $400 million appropriation for medical research. The amount was about $80 million less than approved by the Senate, but was more than $100 million above the Eisenhower Administration's request for the National Institutes of Health.

The allotments for research in specific fields included: cancer, $91 million; mental health, $68 million; heart, $62 million; arthritis, $47 million; neurology, $41 million; allergy, $34 million.

American Board of Obstetrics and Gynecology, Inc.

The next scheduled examination (Part 1), written, and review of case histories for all candidates will be held in various cities of the United States, Canada, and military centers outside the continental United States, on Friday, January 15, 1960. Candidates must submit case reports to the office of the Secretary within 30 days of being notified of their eligibility to Part 1.

Current bulletins may be obtained by writing to: Robert L. Faulkner, M.D., Executive Secretary and Treasurer, 2105 Adelbert Road, Cleveland 6, Ohio.



RADIOLOGIC REFLECTIONS

Shadow or substance

Marcus J. Smith, M.D., Santa Fe, New Mexico

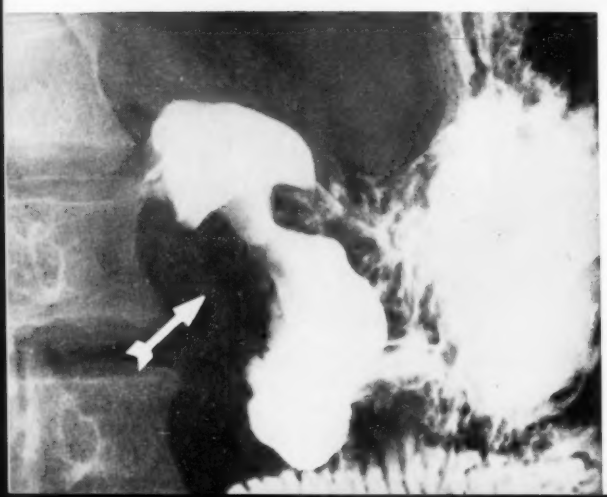
Apothegm

"It is better to know that you are wrong than to hope that you are right" (Regato).

Clinical data

A 39-year-old man, a Department of Public Welfare recipient, was referred with the complaint of attacks of epigastric pain recurring with increasing intensity for three years. The pain pattern could not be related to diet. He "felt paralyzed" during these attacks. Nausea, anorexia, sour eructations and vomiting of green material also occurred. Tarry stools had not been noted, nor was there any other change in their color. His past history was not illuminating. The blood pressure was 140/96. There had been a mild weight loss, but he still weighed 119 pounds and was 62 inches tall. Tenderness was present between the epigastric notch and the umbilicus. Serology was negative, serum amylase was 107 mg. per 100 ml. (Somogyi), and serum lipase was 0.75 units.

Fig. 1



X-ray studies

The chest was normal. The upper gastrointestinal tract examination showed a persistent filling defect along the greater curvature of the gastric antrum (Fig., arrow). Defective peristalsis was present in this location; the area appeared rigid, and suggested multiple ulcerations. The duodenal loop was widened. Radiologic diagnosis was "carcinoma of the head of the pancreas with infiltration of the gastric wall."

Clinical course

General pessimism pervaded the medical and surgical consultants, who were impressed by the poor results of the Whipple procedure for carcinoma of the head of the pancreas. However, a plea for diagnostic verification prevailed, and the patient was subjected to surgical exploration.

At surgery, an extrinsic mass was found adherent to the gastric antrum. This proved to be a gallbladder filled with calculi; a cholecystogastric fistula was impending. Resection was uneventful.

Epilogue

A follow-up examination some two years later disclosed no recurrence of gastrointestinal symptoms.

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Obituaries

Death takes beloved Wray doctor

Dr. Wesley W. Bauer, who recently moved from his home in Wray, Colorado, to Fort Morgan, died unexpectedly May 30, 1959, in his Fort Morgan home.

He was born January 14, 1895, in Norwood, Kansas. He served with the U. S. Navy during World War I and came to Colorado in 1920 where he began his medical practice in Otis. In 1928 he moved to Wray, Colorado, where he became a prominent physician and civic leader. He was a Past President of the Washington-Yuma Counties Medical Society and a member of the Colorado State Medical Society and the American Medical Association. He will long be remembered for his unselfish service to patients and community.

Dr. Bauer is survived by one son, Dr. Thomas W. Bauer of Omaha, a daughter-in-law, and two granddaughters.

Prominent Sterling physician dies

James A. Morehouse, M.D., of Sterling, died on July 18, 1959, at the age of 77. Dr. Morehouse was born at Grand Rapids, Michigan, on October 10, 1881, and was graduated with honors from the University of Michigan in 1904. He obtained his Colorado license in 1905, began his practice in Idaho Springs, Colorado, and moved to Sterling in 1919 where he remained for 40 years. His hobby was ranching and he owned and developed the Pawnee Valley Hereford Ranch in Pawnee Valley, west of Sterling.

Dr. Morehouse is survived by his wife, a sister and two nephews, one of whom is Dr. T. M. Rogers of Sterling.

Longmont loses one of its oldest doctors

W. B. Woods, M.D., of Longmont, died on July 13, 1959, at the age of 77. Dr. Woods was born in London, England, on August 18, 1881. His parents moved to Colorado Springs in 1885 and he graduated from the Ensworth Central Medical School in St. Joseph, Missouri, in 1906. He started to practice in Ordway, Colorado, and moved to Forbes, Colorado, in 1910, where he acted as physician for the Rocky Mountain Fuel Company. He became a member of the Colorado State Medical Society in 1915 and moved to Longmont to practice in 1918.

Dr. Woods was a member of the St. Vrain Masonic Lodge and York Rite bodies in Longmont. He was active in the Lions Club and in 1938 was President of the Boulder County Medical Society. Since 1956, he has been a Life Emeritus Member of the Colorado State Medical Society.

He is survived by his wife, one daughter and two sons.

Former Chief of Staff dies

W. E. Blanchard, of Denver, died on August 1, 1959. Dr. Blanchard was born in Pitkin, Colorado, on October 27, 1887, and graduated from the University of Colorado Medical School in 1912. He was licensed in Colorado in 1912 and practiced surgery in Denver until 1949, when he retired. He was Chief of Staff at St. Anthony's Hospital for 20 years and was also a member of the staff of Presbyterian and St. Joseph's Hospitals.

In 1954, he became a Life Emeritus member of the Colorado State Medical Society.

One of his sons was killed while serving with General George C. Patton's army in the Battle of the Bulge during World War II. Dr. Blanchard is survived by his wife, a son and a brother, all of whom reside in Denver.

Physician needed

There is an opening in Lava Hot Springs, Idaho, for a physician. Anyone wishing further information may call the Utah State Medical Association at EL. 5-7477.

Green River Medical Center

The new medical center at Green River, Utah, is nearing completion. The contractors are waiting for special static proof tile which is to be laid in the operating room area. The new building is a credit to the town and a credit to the people who built it. Pledged finances of $4,000 still remain to

come in to finish paying for the building before it is open for use.

Obituary

GEORGE G. MOYES

George G. Moyes, M.D., 80, died July 18 in an Ogden hospital of causes incident to age. Born May 26, 1879, in Ogden, he was a son of William and Robina Gowans Moyes. He married Ada Grant June 26, 1913, in Listowel, Ontario, Canada. After completing his schooling in Ogden City schools and Weber Academy, now Weber College, he attended Northwestern University School of Medicine, graduating with an M.D. degree.

He began his medical practice in Ogden in 1913 and had been a member of the staffs of St. Benedicts and Thomas D. Dee Memorial Hospitals. He also had been doctor for Globe Mills, Amalgamated Sugar Company and the Fraternal Qrder of Eagles. He was a member and Past President of Weber County Medical Society.

Survivors include his widow, daughter and sister.

WYOMING

Rehabilitation center adds therapists

Darrell D. Hunt, chief instructor in physical therapy at the Mayo Clinic in Rochester, Minn., arrived in Wyoming last month to assume the duties of chief physical therapist at the new Gottsche Rehabilitation Center in Thermopolis. He will work under the Gottsche director and physiatrist, Dr. Charles Flint, a former Mayo Clinic instructor.

Mr. Hunt had been Educational Administrator of the School of Physical Therapy with the Mayo Clinic since 1951. Two other Mayo-trained thera-

continued on page 99

pists are working with him at the Gottsche Center, and another will join the staff in a few weeks.

The Gottsche Rehabilitation Center, which offers facilities for complete physical, mental, speech and vocational therapy, was dedicated June 27. Patients from throughout the Rocky Mountain region are now being treated at the center on referral from their local physician. At the end of three weeks of operations about 50 patients were being treated each week at the new $2 million center.

Abstract of House Proceedings Wyoming State Medical Society

Fifty-Sixth Annual Meeting

June 11, 12, 13, 1959

Moran, Wyoming

FIRST SESSION

Friday Morning, June 12, 1959

The business meeting of the Fifty-Sixth Annual Meeting of the House of Delegates of the Wyoming State Medical Society was called to order by President L. Harmon Wilmoth at Jackson Lake Lodge at 9:20 a.m., June 12, 1959.

The roll was called by Secretary Silvio J. Giovale and it was determined that a quorum was present. It was moved and seconded that the minutes of the Fifty-Fifth Annual Meeting of the House of Delegates as published in the Delegates' Packet be approved. Motion carried.

Under Old Business, Dr. Robert H. Bowden was called upon to report on Medicare. Dr. Bowden discussed the new Medicare contract and the problems concerned in its negotiation, and also the renewal of Home Town Veterans' Care contract.

President Wilmoth announced that Nevada had become a member of the Rocky Mountain Medical Conference. It was moved by Dr. J. S. Hellewell and seconded by Dr. Paul R. Holtz that the Wyoming State Medical Society acknowledge and welcome the addition of the State of Nevada to the Rocky Mountain Medical Conference. Motion carried.

The proposed new plan for selection of Trustees for Blue Cross and Blue Shield was discussed. It was moved by Dr. R. W. Holmes and seconded by Dr. Richard Hunter that the matter be referred to the Resolutions Committee for a later report. Motion carried.

Dr. George H. Phelps reported on the Society Scholarship Fund and suggested plans for such scholarships. He discussed the provision of the Wyoming statute whereby any university student could borrow up to $500.00 each year, to a total of $2,000.00 from any local bank in the state, such

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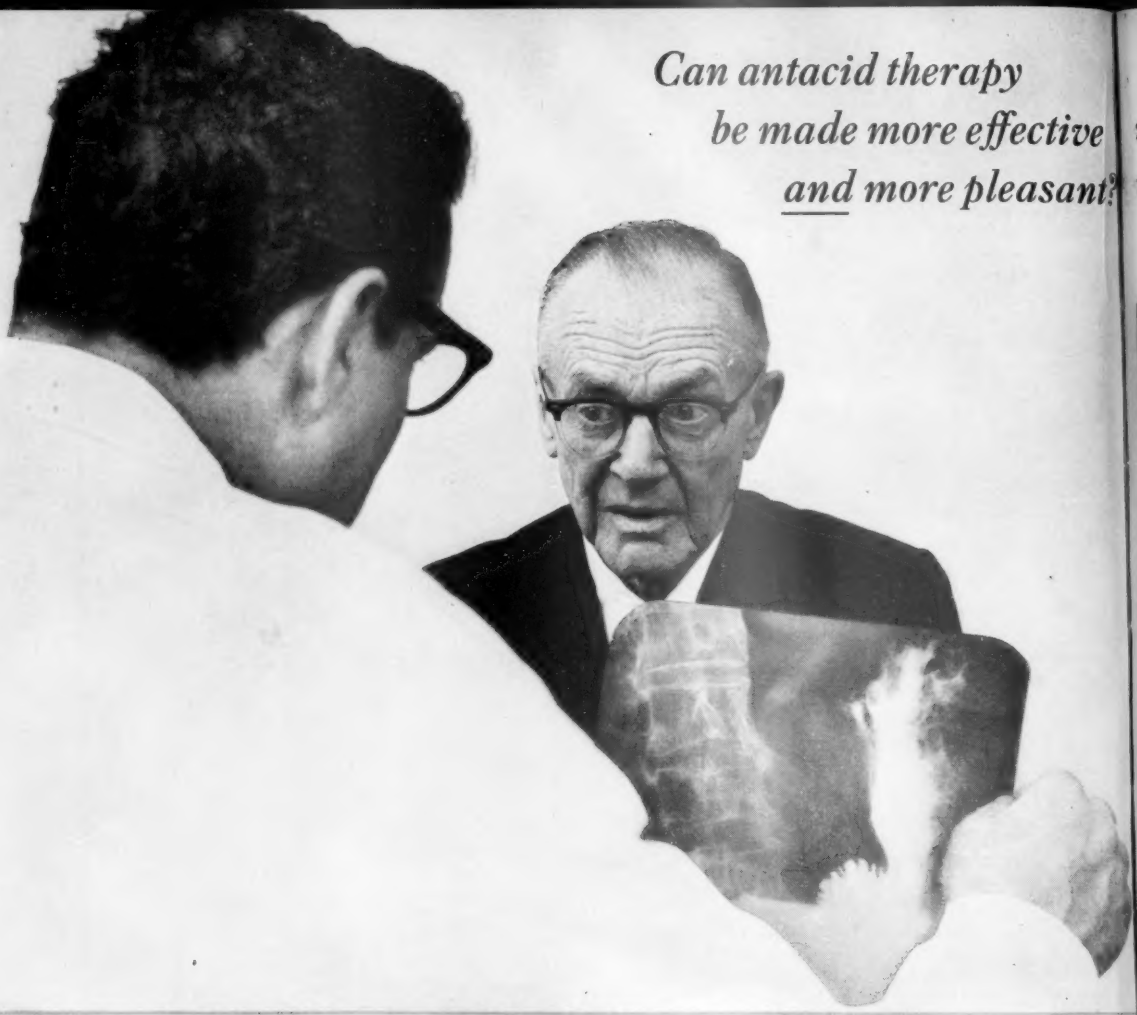

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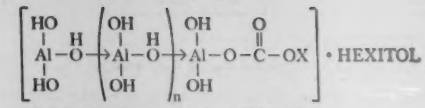

n is at least 1 and averages less than 6. X is a cation.

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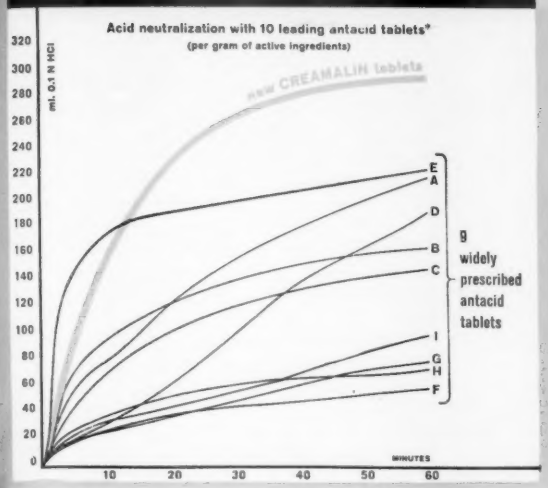

Tablets were powdered and suspended in distilled water in a constant temperature container (37°C) equipped with mechanical stirrer and pH electrodes. Hydrochloric acid was added as needed to maintain pH at 3.5. Volume of acid required was recorded at frequent intervals for one hour.

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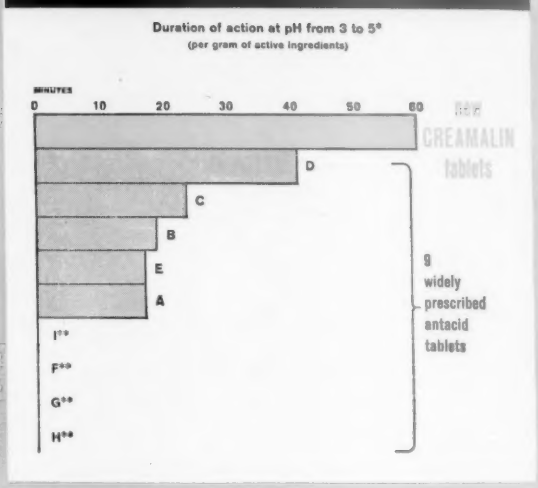

*Hinkel, E. T., Jr., Fisher, and Tainter, M. L.: A new highly reactive aluminum hydroxide complex for gastric hyperacidity. To be published.
**pH stayed below 3.

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No chalky taste. New CREAMALIN tablets are not chalky, gritty, rough or dry. They are highly palatable, soft, smooth, easy to chew, mint flavored.

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Adult Dosage: Gastric hyperacidity: 2 to 4 tablets as necessary. Peptic ulcer or gastritis: 2 to 4 tablets every two to four hours. Tablets may be chewed, swallowed with water or milk, or allowed to dissolve in the mouth.

Supplied: Bottles of 50, 100, 200 and 1000.

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Organization cont. from page 99

loans to be underwritten by the State Department of Education. He stated that the National Polio Foundation was going to offer to one medical student each year, in Wyoming, a scholarship for four years. Also similar scholarships would be offered to one person taking nursing, one person taking physical therapy and other types of physical work in connection with healing. The main part of his discussion centered on the Wyoming State Society proposed plan for aid to medical students, together with possibilities of providing for and maintaining such fund.

It was moved by Dr. Richard Hunter that a resolution be handed the committee that such student loan not take effect until the sophomore year and that it then become retroactive. Dr. R. W. Holmes moved that the Society sponsor a scholarship fund, if after adequate study by the committee and a report to the Councilors for their approval, that this could be done with the money now available; that such a committee be set up and that a scholarship fund be offered if it can be done economically. Dr. Richard Hunter then included Dr. Holmes' motion as a part of his resolution. Seconded by Dr. Charles H. Moore. Motion carried.

It was moved by Dr. Richard Hunter, after discussion on the subject, and seconded by Dr. Silvio J. Giovale that the House of Delegates ratify and approve the National Inter-Professional Code. Motion carried.

The prepayment plan for the low income aged, referred to on page 18 of the Delegates' Packet, was discussed by President Wilmoth and Mr. Arthur R. Abbey. Dr. Richard Hunter moved that the House of Delegates go on record as favoring the Blue Cross-Blue Shield Plan as proposed. Seconded by Dr. Millard J. Smith. Motion carried.

Dr. R. W. Holmes moved that if subsequent government action dictates federal payment for these people that the Society should then revert back to the present Standard Blue Cross-Blue Shield without accepting a cut. Seconded by Dr. J. S. Hellewell. Motion carried.

Dr. W. Andrew Bunten reported on the Medical Advisory Committee for Highway Safety and Driving Standards. It was moved by Dr. Richard Hunter that the Medical Advisory Committee be continued as a permanent commission. Seconded by Dr. Gerald L. Smith. Dr. Hunter then amended his motion to include approval of the form submitted for physical examination for drivers' licenses. Dr. Smith did not second the amendment. President Wilmoth called for a vote on the original motion. Motion carried.

Dr. Gerald Smith moved that the words "Whispered Voice" be inserted in the physical examination form under "EARS" and before the word "Hearing." Seconded by Dr. Robert H. Bowden. Motion carried.

President Wilmoth read a letter from Dr. Bernard J. Sullivan suggesting that the Blue Shield No Fee Schedule Plan not be adopted. Dr. Robert H. Bowden read a letter from the Wisconsin Medical Society, Herman L. Toser, Acting Insurance Director, favoring the No Fee Schedule Plan.

Dr. Richard Hunter moved that the House of Delegates go on record as not favoring the No Fee Schedule Plan. Seconded by Dr. Paul R. Holtz. By a show of hands there were 13 in favor of the motion and 11 against. Motion carried.

It was moved by Dr. Richard Hunter that the Treasurer's report as printed in the Delegates' Packet be approved. Seconded by Dr. W. Andrew

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tastes good

the straws just symbolize the good flavor! And DIMETANE EXPECTORANT for cough is as effective as it is delicious. FORMULA: each 5 cc. (1 teaspoonful) contains: DIMETANE (Parabromdylamine Maleate) 2.0 mg.; Glyceryl Guaiacolate 100.0 mg.; Phenylephrine Hydrochloride, USP 5.0 mg.; Phenylpropanolamine Hydrochloride, NNR 5.0 mg.; Alcohol 3.5% in a good-tasting aromatic base.

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combines the unsurpassed antihistamine Dimetane with the clinically proven expectorant glyceryl guaiacolate (which increases R.T.F. almost 200%) and two recognized decongestants. When additional cough suppressant action is indicated, prescribe DIMETANE EXPECTORANT-DC, which provides the basic formula with dihydrocodeinone bitartrate 1.8 mg. per 5 cc. (exempt narcotic).

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(WITH DIHYDROCODEINONE BITARTRATE 1.8 MG./5CC.)

Bunten. Motion carried.

Dr. Silvio J. Giovale stated that he had no Secretary's report, that his job was made so much easier because of the excellent work of the Executive Secretary.

President Wilmoth reported on the activities of the Council. The minutes of the Council meeting of Thursday, June 11, were read by Mr. Abbey. The following budget was unanimously adopted:

Travel—Exec. Sec. and others	$ 500.00
Travel—A.M.A. Delegate and Alternate	1,000.00
Salary—Executive Secretary	2,000.00
Office Expense—Executive Secretary	700.00
Rocky Mountain Medical Journal Subscriptions	650.00
Printing, Stationery and Supplies	400.00
Woman's Auxiliary	400.00
Postage	350.00
Public Relations and Advertising	100.00
Com. and Conf. (not State Meeting)	500.00
Telephone and Telegraph	200.00
Auditing	60.00
President's Office	100.00
Secretary's Office	50.00
Legal	1,200.00

It was moved by Dr. Richard Hunter that the actions taken by the Council be approved. Seconded by Dr. H. B. Anderson. Motion carried.

Dr. Louis G. Booth reported on the American Medical Education Foundation. Dr. Booth suggested a voluntary contribution of $15.00 per member for the Foundation be included with the annual statement of dues.

At this point President Wilmoth interrupted the discussion and introduced Mrs. Everett W. Gardner, President of the Ladies' Auxiliary to The Wyoming State Medical Society, who addressed the House of Delegates.

After resumption of discussion of the report of Dr. Louis G. Booth on the American Medical Education Foundation, it was moved by Dr. Richard Hunter to adopt a resolution to add a $15.00 voluntary contribution to the present billing of dues and designate it for the A.M.E.F. for whatever school indicated by the donor. Seconded by Dr. R. D. Arnold. Motion carried.

Dr. Richard Hunter gave a report on the subject of Medical Economics. Each member was handed a printed report by Dr. Hunter, which report was complemented by oral remarks regarding the handling of welfare patients and the difficulties encountered with regard to authorization by the Welfare Department and fees, and the plan now used by the Laramie County Society. It was then suggested that the matter be considered further by the Medical Economics Committee.

Whereupon the House of Delegates was recessed at 12:30 p.m., June 12, 1959, to 9:00 a.m., June 13, 1959.

SECOND SESSION

9:00 a.m., June 13, 1959

President L. Harmon Wilmoth introduced Dr. U. R. Bryner, Salt Lake City, President of the

Utah State Medical Association.

President Wilmoth then called for Committee Reports as captioned on pages 2 and 3 of the Delegates' Packet.

Dr. W. Andrew Bunten, reporting further on the Committee on Highway Safety and Driving Standards, stated that the Revenue Division of the Highway Department, and the Patrol are anxious for the House of Delegates to take some action with reference to capability of drivers. He stated that he was doubtful that the House of Delegates, as such, could take any action. He stressed the conscientious completion of the physical examination forms by the individual doctors.

Dr. James W. Sampson, reporting for the Necrology Committee, stated that the doctors lost last year were Dr. William A. Graham of Powell, Dr. Julius F. Clarenbach of Sundance, Dr. Edwin E. Whedon of Sheridan, Dr. O. C. McCandless of Cheyenne, Dr. Albert R. Taylor of Cheyenne, Dr. Jay G. Wanner of Rock Springs, Dr. William B. Summers of Casper, Dr. Edmund F. Noyes of Dixon and Dr. Joseph F. Whalen of Evanston. The House of Delegates then stood in a moment of silent tribute to those doctors.

Dr. Benjamin Gitlitz, reporting for the Nominating Committee, presented the names of Dr. Francis Barrott for President Elect, Dr. Silvio J. Giovale for Vice President, Dr. John B. Krahl for Secretary, Dr. Carleton D. Anton for Treasurer.

Dr. Cecil R. Reinstein, reporting for the Poliomyelitis Committee, stated that the committee had met and recommended a change in the immunization schedule. He then discussed the specific schedule recommended by the committee. Dr. Reinstein requested that the recommendations of the State Health Department, approved by the Poliomyelitis Committee, be approved by the House of Delegates in order that the committee may inform every physician that this program is jointly approved by the Health Department and the Medical Society. It was moved by Dr. John H. Froyd that the House of Delegates endorse the action of the committee and the schedule as outlined by Dr. Reinstein. Seconded by Dr. R. W. Holmes. Motion carried.

President Wilmoth called upon Mr. Byron Hirst, legal advisor to the Society, who addressed the House of Delegates briefly.

President Wilmoth introduced Dr. John I. Zarit of Denver, President of the Colorado State Medical Society.

Dr. Beverly T. Mead of the Department of Psychiatry at the University of Utah addressed the House of Delegates on mental health. He discussed the project started in a four-state area, including Wyoming, for psychiatric education of physicians other than psychiatrists. The project was then discussed by Dr. Jesse E. Simons. It was moved by Dr. J. S. Hellewell and seconded by

continued on page 108

new hope for fetal salvage

DELA

The results of administering Delalutin before the 12th week of gestation to 82 women with habitual abortion were reported recently by Reifenstein[1] in a compilation of data supplied by 45 investigators. Every patient had experienced at least three consecutive abortions immediately preceding the treated pregnancy. More than 68% of these women were delivered successfully and uneventfully following Delalutin therapy.

Boschann,[2] in a study of pregnancies with threatened abortion, found that:

37% of 73 pregnancies were carried to term without progestational therapy

64% of 42 pregnancies were salvaged by progesterone

83% of 73 pregnancies were salvaged by Delalutin

Eichner,[3] found that in Delalutin-treated women, fetal salvage of infants below term weight (1000 to 2000 gm.) was significantly improved. 108 (76%) of 142 babies of this birth weight survived without mothers receiving progestational therapy, while 16 (100%) of 16 babies of this birth weight survived with mothers receiving Delalutin therapy. A comparison study was made of a group of repeated aborters treated with Delalutin, and a group with a similar history treated with bed rest and sedation.[4] Pregnancy salvage with Delalutin was twice that of the control group. Delalutin was found to be "highly active", well-tolerated and long-acting.

According to Tyler and Olson,[5] "These qualities of prolonged action and relative freedom from local reactions make [Delalutin] a generally more desirable therapeutic agent for intramuscular use than progesterone . . . ."

DELALUTIN BABIES WHOSE MOTHERS WERE HABITUAL ABORTERS

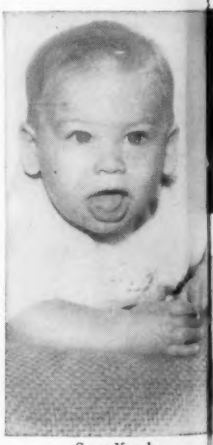
Mary Ann Cribben
Garden City, N. Y.

Amy Sue Greenman
Lincolnwood, Ill.

William Peller
Skokie, Ill.

Randy Sinis
Denver, Colo.

Richard Miller
Denver, Colo.



Scott Knudsen
Norwich, Vt.

References: 1. Reifenstein, E. C. Jr.: *Annals N. Y. Acad. Sc.* 71:762 (July 30) 1958. 2. Boschann, H-W.: *ibid.*, p. 727. 3. Eichner, E.: *ibid.*, p. 787. 4. Hodgkinson, C. P.; Igna, E. J., and Bukeavich, A. P.: *Am. J. Obst. & Gynec.* 76:279, 1958. 5. Tyler, E. T., and Olson, H. J.: *J.A.M.A.* 169:1843, 1959.

ALUTIN

improved progestational therapy

SQUIBB HYDROPROGESTERONE CAPROATE

***DELALUTIN** offers these advantages over other progestational agents:*

- *long-acting sustained therapy
- *more effective in producing and maintaining a completely matured secretory endometrium
- *no androgenic effect
- *more concentrated solution requiring injection of less vehicle
- *unusually well-tolerated, even in large doses
- *fewer injections required
- *low viscosity makes administration easier

DELALUTIN is also potent and safe therapy for: threatened abortion; postpartum afterpains; amenorrhea, primary and secondary; dysfunctional uterine bleeding not associated with genital malignancy; infertility with inadequate corpus luteum function; production of secretory endometrium and desquamation during estrogen therapy; premenstrual tension; dysmenorrhea; cyclomastopathy, mastodynia, adenosis and chronic cystic mastitis.

Administration and dosage:

Because of its low viscosity, Delalutin may be administered with a small gauge needle (deep intragluteal injection). Complete information on administration and dosage is supplied in the package insert.

Supply:

Delalutin is available in vials of 2 and 10 cc., each containing 125 mg. of hydroxyprogesterone caproate in sesame oil, and benzyl benzoate.

Each of these healthy, normal babies was born by a mother with a documented previous history of true habitual abortion, who was treated during her most recent pregnancy with DELALUTIN.

Nina Rutkowski
Roselle, Ill.

Rosanne Guberman
Elmont, L.I., N. Y.

Kenneth Michael Simonson
Denver, Colo.

Daniel A. Fabrizio, Jr.
No. Massapequa, L.I., N. Y.

Joanne Verderosa
Seaford, N. Y.

J. Gettemy
Hartford, Conn.

Karen Mary Nederman
East Williston, N. Y.

SQUIBB *Squibb Quality—the Priceless Ingredient*

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Organization cont. from page 105

Dr. W. Andrew Bunten that the program be endorsed. Motion carried.

Dr. Benjamin Gitlitz, reporting for the Resolutions Committee, presented the following resolutions:

Resolution to incorporate

WHEREAS, It hereby is declared to be in the best interests of the Society to incorporate; now, therefore, be it

RESOLVED, That the President hereby is to file with the Secretary of State a Certificate of Incorporation, not inconsistent with the Constitution and By-laws of this Society, and otherwise to comply with the laws of Wyoming for incorporation of non-profit corporations; and be it further

RESOLVED, That as soon as incorporated, this Society shall function thereafter as a corporation.

The committee recommended that the resolution do pass. It was moved by Dr. P. M. Schunk that the resolution be adopted. Seconded by Dr. J. S. Hellewell. Motion carried.

Resolution

WHEREAS, The Public Health Laboratory has been under the supervision of a medical technician;

WHEREAS, The best interests of medicine can be better served by a director who understands the importance and interpretation of diagnostic aids; therefore, be it

RESOLVED, That the House of Delegates of the State Medical Society recommend to the Director of Public Health that the State Health Laboratory be placed under the supervision of a Doctor of Medicine, experienced in laboratory procedures if and when available.

The committee recommended that the resolution do pass. It was moved by Dr. R. W. Holmes and seconded by Dr. John H. Froyd that the resolution pass. Motion carried.

Resolution

BE IT RESOLVED, That the following sequence of actions be taken in the election of physician members to the Blue Shield and Blue Cross Board of Trustees:

1. The Presidents of Wyoming Blue Shield and Blue Cross shall notify the President of the State Medical Society of any existing doctor vacancies on the Boards of Trustees.
2. The President of the State Medical Society shall request each County Society to submit one nominee to fill the existing vacancies.
3. The Presidents of the component County Medical Societies shall hold such elections and forward the names of the nominees to the President of the Wyoming State Medical Society.
4. The President of the State Medical Society shall then in turn present the list of nominees to the House of Delegates of the State Medical Society and from this list the Delegates shall name two members for each existing vacancy.
5. The President of the State Medical Society shall then forward the list of nominees thus selected to the Presidents of Blue Shield and Blue Cross.
6. The Boards of Trustees of Blue Shield and Blue Cross shall select one nominee from each of two nominees presented for their consideration.

BE IT FURTHER RESOLVED, That a Trustee having served one term shall be eligible for renomination and reelection by the Boards of Trustees of Blue Shield and Blue Cross without repeat approval by the State Medical Society.

The committee recommended that the resolution do pass.

It was moved by Dr. P. M. Schunk that the resolution be adopted.

Resolution

BE IT RESOLVED, That the House of Delegates instruct

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the President of the State Medical Society to inquire carefully into the need for and the cost of a Public Relations Program to be carried out by a professional agency acting in behalf of the State Medical Society. Such a report should be completed in enough detail to allow the Council of the State Medical Society to consider and make recommendation on these two points and then present the entire program to the next Annual Meeting of the House of Delegates.

The Resolutions Committee recommended that the resolution do pass. It was moved by Dr. Silvio J. Giovale that the resolution do pass. Seconded by Dr. W. Andrew Bunten. Motion carried.

Resolution

TRIBUTE TO JOSEPH WHALEN, M.D.

WHEREAS, Joseph Whalen, M.D., member of the Wyoming State Medical Society since 1929;

WHEREAS, He served as Superintendent of the Wyoming State Hospital at Evanston since 1936, except for military leave during World War II (1942-1946); and

WHEREAS, He served for many years as Councilor to Blue Shield and Blue Cross; and

WHEREAS, It is the desire of the members of the Wyoming State Medical Society to express their appreciation for his many years as a devoted physician in treating the mentally ill and maintaining a close relationship with private medicine and to make it a matter of permanent record; therefore, be it

RESOLVED, That this tribute to Joseph Whalen, M.D., be placed in the minutes of the Fifty-Sixth Annual Meeting of The Wyoming State Medical Society, and that a copy should be mailed to his surviving daughter.

The Resolutions Committee recommended that the resolution do pass. It was moved by Dr. W. Andrew Bunten that the resolution do pass. Seconded by Dr. Paul R. Holtz. Motion carried.

Resolution submitted by Natrona County

RESOLVED, That the Wyoming State Medical Society approve the principle of providing medical care for welfare patients within the state borders whenever this is possible.

RESOLVED FURTHER, That when such care is not available within the state, the physician responsible for care shall so certify to the State Welfare Department prior to arranging out-of-state medical care. If such care proves, in fact, to be available in Wyoming, the Welfare Department should so inform the attending physician. It is noted that exceptional circumstances may arise when geographic or climatic conditions will make out-of-state care more practical, and that in such instances proper exception should be made.

It was moved by Dr. P. M. Schunk that the resolution be adopted. Seconded by Dr. W. Andrew Bunten. Motion carried.

Resolution submitted by Drs. Trickman, Mattson, Lowe, Holmes and Phibbs

WHEREAS, It is well known to the members of the Wyoming State Medical Society that many volunteer health agencies are now operating in Wyoming independent of each other; and

WHEREAS, There is considerable duplication of administrative efforts, fund raising and travel; and

WHEREAS, The fields of health education and community health service are of vital interest to the State Medical Society and constitute one of the most rewarding efforts in the realm of public relations; and

WHEREAS, An effort is being made by several volunteer health agencies to amalgamate their facilities and resources; therefore, be it

RESOLVED, That the Wyoming State Medical Society appoint a committee to study the problems in this field and cooperate with efforts being made to insure more efficient operation on the state level.

There was no recommendation by the Resolutions Committee. After much discussion it was moved by Dr. W. Andrew Bunten that the resolution be adopted. Seconded by Dr. Robert H. Bowden. Motion carried.

Resolution (not adopted)

WHEREAS, The Dependents Medical Care Act was inaugurated for the avowed purpose of improving troop morale by provision of so-called industrial type "fringe benefits"; and

WHEREAS, The original program, which was generally satisfactory to the patient and doctor alike, has been altered by Congressional and Office of Dependent Medical Care action to the point where the basic tenets of the plan have been abandoned; and

WHEREAS, The physicians of this state have given their support and cooperation to the proposal which some deemed to be at variance with their ideals of private enterprise, only to have the program reduced to a confusing half-entity; now, therefore, be it

RESOLVED, That the Wyoming State Medical Society assert its opposition to the new "Medicare" program as being unwieldy, unsatisfactory, and far from the original intent of

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use XYLOCAINE *ointment*

. . . in nearly all external symptoms of *pain, itching* and *burning*, e.g., sunburn, minor burns, insect bites, abrasions, poison ivy and other contact dermatitis, hemorrhoids and inoperable anorectal conditions, and cracked nipples.

Xylocaine Ointment, a surface or topical anesthetic, gives fast, effective and long lasting relief. Its *water-soluble, nonstaining* base melts on contact with the skin, to assure immediate release of the anesthetic for fast action and it does not interfere with the healing processes.

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the program and that the following recommendations be considered:

1. Complete eradication of the Medicare program.
2. Creation of a group insurance program for military dependents allowing free choice of military or civilian facilities.
3. Return to the original program with adequate appropriations for its maintenance.

BE IT FURTHER RESOLVED, That copies of this resolution be forwarded to the Board of Trustees of the American Medical Association, and the several State Medical Associations.

There was no recommendation by the Resolutions Committee. The resolution was discussed by Dr. John I. Zarit, President of the Colorado State Medical Society. It was moved by Dr. Paul R. Holtz and seconded by Dr. Gerald Smith that the resolution be rejected and not passed. Motion carried.

Resolution

WHEREAS, The Wyoming State Medical Society in its Fifty-Sixth Annual Meeting assembled at Jackson Lake Lodge, Wyoming, this June 11, 12, 13, 1959, has enjoyed a most successful convention; and

WHEREAS, The Scientific Program has been of very high quality with outstanding speakers, and several worthy exhibits; and

WHEREAS, The hospitality of the personnel of the Jackson Lake Lodge has been shown in many ways, adding to the comfort and enjoyment of all members and guests; and

WHEREAS, The commercial exhibitors have contributed very materially to the success of the convention by their cooperation and devotion to the needs of the doctors; and

WHEREAS, Special recognition is due President L. Harmon Wilmoth for the many ways his leadership and efforts have insured the success of the meeting; and

WHEREAS, Special recognition is due Arthur R. Abbey, Executive Secretary, for his tireless attention to myriad details, efficiency, foresight, and customary good will, and

WHEREAS, The Wyoming Division of the American Cancer Society has made an excellent contribution to the meeting by providing one of the speakers; and

WHEREAS, The American Academy of General Practice has made an excellent contribution to the meeting by providing one of the speakers; and

WHEREAS, Many of the officers and committee members of the Society have worked with diligence and devotion throughout the year to make possible the considerable achievements of the Society; and

WHEREAS, Our Society has been additionally honored by delegations from Colorado, including the President of its State Society, John Zarit, M.D.; from Billings, Montana, its President, H. T. Carraway, M.D., and from Utah, U. R. Bryner, M.D., President of The Utah State Medical Association, and several more distant states; and

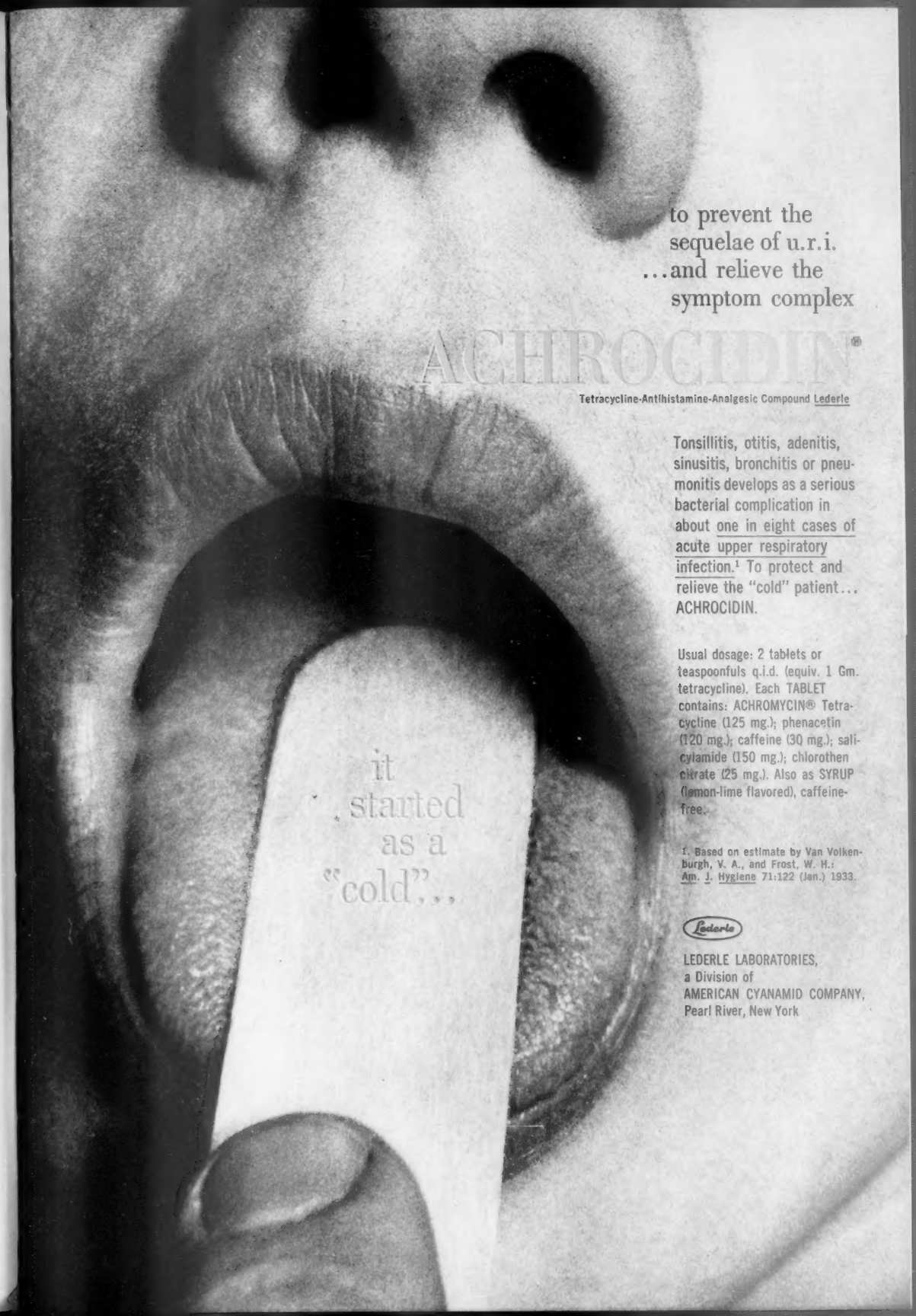
WHEREAS, The success and the charm of the convention is greatly enhanced by the presence and valued loyalty of the Ladies' Auxiliary; therefore, be it

RESOLVED, That the members of the House of Delegates of The Wyoming State Medical Society assembled do take this opportunity to unanimously express their deep appreciation for all of the matters heretofore contained.

The Resolutions Committee recommended that the resolution do pass. It was moved by Dr. Gerald Smith and seconded by Dr. H. B. Anderson that the resolution pass. Motion carried.

Dr. Benjamin Gitlitz, reporting for the Time and Place Committee, stated that the 1960 dates had already been set for September 7, 8, 9 and 10, at Jackson Lake Lodge; that the tentative dates for Jackson Lake Lodge for 1961 were September 6, 7, 8 and 9. After some discussion it was moved by Dr. Robert H. Bowden that the 1961 convention be held at Moran, Wyoming, at the Jackson Lake Lodge on the dates mentioned in the report and that unless there is opposition that the convention site continue from year to year on that basis. Seconded by Dr. R. W. Holmes. Motion carried.

President L. Harmon Wilmoth called upon Mr. Harvey T. Sethman, Executive Secretary of the Colorado State Medical Society, who addressed the House of Delegates. Mr. Sethman discussed and reported on the business aspect and financial condition of the Rocky Mountain Medical Journal. He also stressed the need for more scientific articles from Wyoming, stating that during the past year there were only three. Mr. Sethman announced for Dr. Lewis C. Benesh, District Councilor for the Industrial Medical Association, that an Industrial Medical Association would be organized in the near future and that those physi-



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1. Based on estimate by Van Volkenburgh, V. A., and Frost, W. H.: Am. J. Hygiene 71:122 (Jan.) 1933.

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cians interested in industrial work would be welcome in such organization.

Dr. R. W. Holmes spoke briefly in connection with the report of the Wyoming tuberculosis problems and asked for the House of Delegates' support in proceeding along the lines suggested in the report, as a continuing committee. It was moved by Dr. H. B. Anderson that the report be approved and such support be evidenced by the House of Delegates. Seconded by Dr. Brendan Phibbs. Motion carried.

It was moved by Dr. R. W. Holmes and seconded by Dr. W. Andrew Bunten that all committee reports, not previously acted upon individually, be approved by the House of Delegates. Motion carried.

Dr. L. Harmon Wilmoth then delivered the President's address which was most enthusiastically received by the House of Delegates.*

Mr. Arthur R. Abbey read a telegram received from Dr. Bernard J. Sullivan, then in attendance at the A.M.A.

After some discussion it was moved by Dr. R. W. Holmes and seconded by Dr. H. B. Anderson that the annual dues be increased from $25.00 to $50.00 in accordance with the recommendation of the Councilors. Motion carried.

Dr. J. S. Hellewell moved that the Councilors be allowed travel expense to Council meetings, excluding the annual State Meeting. After some discussion it was announced by Mr. Abbey that state officers were considered to be Councilors. Seconded by Dr. Paul R. Holtz. Motion carried.

After considerable discussion it was suggested that the recommended professional qualifications requirement for membership in the Association be referred to the Public Policy and Legislative Committee for further study. It was so moved by Dr. Benjamin Gitlitz and seconded by Dr. Silvio J. Giovale. Motion carried.

Dr. R. W. Holmes stated that he did not feel that the House of Delegates had a factual report on the No Fee Schedule Plan and he moved that the incoming President appoint a committee consisting of at least one or two representatives of the Blue Shield Fee Schedule Committee to look into this plan again, along with Mr. Abbey or Dr. Barrett, whoever would be the other representative of the Blue Shield. Seconded by Dr. Robert H. Bowden. Motion carried.

It was suggested that some effort be made to arrange a special event for the detail men at the next annual meeting. It was so moved by Dr. Robert H. Bowden. Seconded by Dr. Benjamin Gitlitz. Motion carried.

The next order of business was the election of officers. Dr. Francis Barrett was nominated for President Elect by the Nominating Committee.

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*Published in the August, 1959, issue of this Journal, page 35 et seq.

Organization cont. from page 114

There being no further nominations from the floor, it was moved by Dr. R. W. Holmes that the nominations be closed and that the Secretary be instructed to cast a unanimous ballot for Dr. Francis Barrett. Seconded by Dr. Benjamin Gitlitz. Motion carried.

Dr. Silvio J. Giovale was nominated for Vice President by the Nominating Committee. There being no further nominations from the floor, it was moved by Dr. Frederick H. Haigler that the nominations be closed and that the Secretary be instructed to cast a unanimous ballot for Dr. Silvio J. Giovale. Seconded by Dr. J. S. Hellewell. Motion carried.

Dr. H. B. Anderson announced that he had talked to Dr. John B. Krahl and that Dr. Krahl requested his name be withdrawn from nomination for Secretary. Dr. John H. Froyd nominated Dr. Frederick H. Haigler for Secretary. There being no further nominations from the floor, it was moved by Dr. J. S. Hellewell and seconded by Dr. W. Andrew Bunten that the nominations be closed and a unanimous ballot be cast for Dr. Haigler. Motion carried.

The Nominating Committee nominated Dr. Carleton D. Anton for Treasurer. Dr. J. S. Hellewell suggested that while Dr. Anton had expressed his willingness to accept the office again, that he should be elected to some higher office next year. There being no further nominations from the floor, it was moved by Dr. Benjamin Gitlitz and seconded by Dr. N. E. Morad that the nominations be closed and the Secretary instructed to cast a unanimous ballot for Dr. Anton. Motion carried.

Since there were two vacancies in the membership on the Rocky Mountain Medical Conference Continuing Committee, one occasioned by the death of Dr. Earl Whedon and one by the expiration of the term of Dr. W. W. Elmore, Dr. John H. Froyd was nominated by Dr. Francis Barrett and Dr. J. S. Hellewell was nominated by Dr. Benjamin Gitlitz. There being no further nominations from the floor, Dr. R. W. Holmes moved and Dr. W. Andrew Bunten seconded, that the nominations be closed and the Secretary be instructed to cast unanimous ballots for both nominees. Motion carried. Dr. Froyd was designated to serve for one year and Dr. Hellewell to serve for three years.

Past President Dr. Paul R. Holtz conducted newly elected President Dr. Benjamin Gitlitz to the rostrum where he accepted the President's gavel from Past President Dr. L. Harmon Wilmoth.

It was moved by Dr. R. W. Holmes and seconded by Dr. John H. Waters that the meeting be adjourned. Motion carried.

American Association of Medical Assistants

By Hallie Cummins, R.R.L.*

More and more doctors throughout the country are coming to know what the American Association of Medical Assistants is doing to assist with the education and know-how of their members, and more and more interest is being shown by the medical societies, both county and state.

A central office with an Executive Secretary has been opened in Chicago and members are offered a salary replacement insurance plan comparable to plans offered to the medical profession.

Plans are under way for educational courses which will be offered to those presently working in the field and to those interested in entering the field as medical assistants. The work in the doctor's office is highly specialized and trained medical assistants are necessary to assist the doctor and to relieve him of many of the details which

continued on page 126

*Chairman, Public Relations Committee, American Association of Medical Assistants.

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the mood brightener

Lifts the burden of depression... opens the way for a sunnier outlook

New areas of therapy

NIAMID is clinically effective in a broad range of depressive states, including: involutional melancholia, senile depression, postpartum depression, reactive depression, the depressive stage of manic-depressive disease, and schizophrenic depressive reaction.

A wide variety of psychoneurotic depressions seen in general practice also respond effectively to NIAMID. Depression associated with the menopause and with postoperative states, and depression accompanying chronic or incurable diseases such as gastrointestinal and cardiovascular disorders, arthritis, and inoperable cancer, can now be treated successfully with NIAMID.

NIAMID is also strikingly effective for many complaints, mild or severe, vague or well defined, when due to masked depression rather than to organic disease. This masked depression may take the form of guilt feelings, crying spells or sadness, difficulty in concentration, loss of energy or drive, insomnia, emotional fatigue, feelings of hopelessness or helplessness, loss of interest in normal activity, listlessness, apprehension or agitation, and loss of appetite and weight.

While tranquilizers have had some measure of effectiveness in many of these areas, NIAMID now gives the practicing physician a new, safe drug for the specific treatment of depression without the risk of increasing the depressive symptoms.

New safety

NIAMID, in extensive clinical trials, has not been associated with the hepatotoxic reactions observed with the first of the monoamine oxidase inhibitors. These reactions have not been seen with NIAMID.

Acute and chronic toxicity studies show this distinctive freedom from toxicity. Moreover, during the extensive clinical trials of NIAMID by a large number of investigators, not only has no liver damage been reported, but only in a very few isolated instances have hypotensive effects been seen.

The absence of toxicity may be the result of the unique carboxamide group in the NIAMID molecule. This structure may explain why NIAMID is excreted largely unchanged in the urine, with only insignificant quantities of potentially free hydrazine being formed. Previously, where a monoamine oxidase inhibitor had been associated with hepatic toxicity, there was some evidence that substantial quantities of free hydrazine were formed in the body.

Background of NIAMID

A major advance in the treatment of mental depression came with a newer understanding of the influence of brain serotonin and norepinephrine on the mood. Levels of both these neuro-hormones are decreased in animals under experimental conditions analogous to depression; relief of these model depressions is seen with a rise in the levels of both serotonin and norepinephrine.

A second advance came with the development of monoamine oxidase inhibitors, substances which raise the cerebral level of both serotonin and norepinephrine. The first of the amine oxidase inhibitors raised the cerebral level of serotonin, but did not appear to raise that of norepinephrine levels proportionately.

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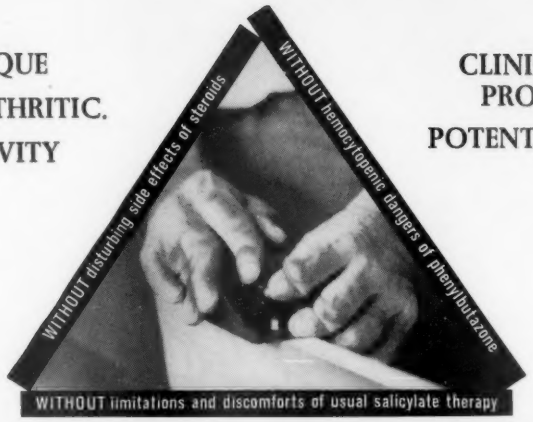

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"Our most striking case was that of a 55 year old white male with rheumatoid arthritis, steroid intoxication, duodenal ulcer, taking 40 mg. triamcinalone/day. He is now on Choline Salicylate [Arthropan] alone and has returned to work."[1]

"In a group of patients who habitually develop gastric distress to moderate dosages of aspirin...all tolerated the new preparation [Arthropan] exceedingly well..."[2]

"Patients who had been taking steroid preparations before using Choline Salicylate [Arthropan] were able to reduce the doses (of steroid) and in some instances to discontinue it entirely."[3]

"In no instances did gastrointestinal symptoms preclude administration of Choline Salicylate [Arthropan]."[4]

These reports have emanated from extensive clinical trials[5] in thousands of patients by more than 180 physicians.

RECOMMENDED DOSAGE: (Adults and children over 12 years) *As an anti-inflammatory agent in rheumatoid arthritis and rheumatic fever:* 1-2 teaspoonfuls, 4 times daily at onset of therapy. *As an analgesic or antipyretic:* 1 to 2 teaspoonfuls, 3 to 4 times daily.

NOTE: Unless satisfactory relief is obtained, it is advisable gradually to increase dosage by increments of 1 teaspoonful per day until maximum benefit, without side effects, is attained. *In every case the dosage should be adjusted upwards or downwards to assure full therapeutic activity up to the limit of the patient's tolerance (in the absence of gastrointestinal distress or early salicylism).*

Because of the special chemical structure of 'Arthropan', alkalies or other buffering substances are not required to protect the stomach wall and should not be administered with 'Arthropan'.

SUPPLIED: 16 and 8 oz. bottles. Each ml. of 'Arthropan' contains 174 mg. of Choline Salicylate. Each teaspoonful (5 ml.) contains 870 mg.

CITED REFERENCES: 1. Clark, G. M.: Personal Communication, 1958. 2. Feldman, H. A.: Personal Communication, 1958. 3. Scully, F. J.: Treatment of Rheumatic Disorders with Choline Salicylate (to be submitted for publication). 4. Friedland, C. K.: Personal Communication, 1958. 5. Complete data available on request to the Medical Director.

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are a part of the office routine.

The Third Annual Meeting of the Association will be held in Philadelphia, October 16-18, at the Benjamin Franklin Hotel. Medical assistants and doctors are invited to attend.

Here is what a representative group of doctors have to say:

Dr. John W. Rice, Jackson, Michigan: "We in the Michigan State Medical Society are justly proud of the Michigan State Medical Assistants Society. This organization has come from a start in 1949 to an enthusiastic, ambitious, hard-working group of 1,000 members at the present time. The State Medical Society in Michigan stands squarely behind the medical assistants and we want them to produce a standard for girls working in our offices that is so high that it will become a career program for high school graduates to shoot at."

Dr. Fred Sternagel, West Des Moines, Iowa: "I have watched with a great deal of satisfaction the founding, growth and development of the American Association of Medical Assistants. From a small beginning a few years ago, the AAMA has won recognition from the American Medical Association and the State Medical Societies of 21 states where they have chapters.

"I have watched carefully the progress of this Association and observed that the highest standards of ethics have governed its activities. Some few physicians who disapprove of the movement on the basis that it tends to create a union and may result in unreasonable demands by assistants upon their employers have found nothing to substantiate their fears.

"One of the principal purposes of the Association is to encourage girls engaged in this activity to become better educated, better trained, better qualified and more capable employees in their chosen vocation."

Dr. Robert L. Schaeffer, Allentown, Pennsylvania: "The practice of medicine in recent years has become very complicated, and the work of the medical assistant employed in the physician's office has consequently become complex. There are many facets in medical practice and in the work of the doctor's assistant so that an efficient girl must be trained along many channels. In addition to the particular technical knowledge her doctor requires, she must know the principles of public relations, professional relations, insurance such as Blue Cross, Blue Shield, and the various commercial coverages, and she should understand taxes, federal, state and local.

"The American Medical Association and some state and county societies are aware of the need and have aided the medical assistants to form the American Association of Medical Assistants, with

many component state and local groups."

Dr. M. E. Smernoff, Denver, Colorado: "It has come to my attention, since attending the National Convention of Medical Assistants last October, that many doctors are skeptical and suspicious of the intentions of the organization we now so cherish. What is the advantage? This is a common question. Ideas of unionism, demands for higher salaries, prepaid insurance, sick leave and specialization have become rampant.

"I feel that the doctors have not been made totally aware of the reasons for existence of the organization so completely sponsored by all local and state medical societies, as well as the American Medical Association.

"An organization which now comprises over 6,000 dedicated women in 21 states are educating themselves at the expense of time and money to better serve the medical profession. They carry their own health and accident insurance. They are becoming more adept public relations servants. They are improving their poise and personal effects to lure and retain the patient. Their code of ethics is that adopted by the medical profession. Further, the American Association of Medical Assistants is striving for a standard national educational program which will eventually offer certification and registration of flexible assistants who will become unmistakable assets to any professional office regardless of the specialty."

Dr. Robert Allyn Royster, Evansville, Indiana: "It has been my pleasure to have been closely associated the past few years with medical assistants groups on a county, state and national level. The aims and ideals of these enthusiastic groups are outstanding and, in 1956, the American Medical Association passed a resolution at its clinical meeting in Seattle, Washington, commending the objectives of the American Association of Medical Assistants and its component chapters."

Dr. Steward H. Smith, San Diego, California: "For several years I have been associated with the medical assistants group in San Diego County. More recently my experience has broadened into state-wide and national scope.

"The greatest asset of each of these groups is absolute sincerity of purpose. The basic reason for organization on all levels has been the desire of the members to further their education in this allied medical field. This desire and its fulfillment means that the medical assistant is trying to do a better job for her employer.

"There has never in the history of any chapter, never locally, state-wide or nationally—I repeat, there has never been any intent or even desire to organize for purposes of forming a union. This fact is not known by all medical doctors. The medical assistants are recognized and sponsored by the County, State and American Medical Associations."

THE BOOK CORNER

Book Reviews

Anatomy for Surgeons: By W. Henry Hollinshead, Ph.D. Vol. 3: The Back and Limbs. N. Y., Hoeber-Harper, 1958. 901 p. Price: $23.50.

This completes the three volumes of anatomical texts written for the surgeon and surgical resident. It was not intended for the medical student. The work was done with the assistance of 12 experienced consultants from various clinical sections, mainly Orthopedic Surgery at the Mayo Clinic. The wealth of related pathologic, physiologic, and operative information, combined with the descriptive anatomy, makes for easy correlation and understanding. Some such combination texts lack sufficient anatomical detail so that they are of limited usefulness. The text being reviewed does not have this deficiency.

The illustrations are superb, many are graphic, and well labeled. The lined drawings attempt to gain the needed third dimension for practical anatomical understanding. To everyone's advantage, the author has freely borrowed classical drawings and illustrations from the medical literature. The double column print facilitates rapid reading and quick correlation with the figures.

Unquestionably this volume will prove to be a regular and helpful source book for the surgeon doing back and extremity operative procedures.

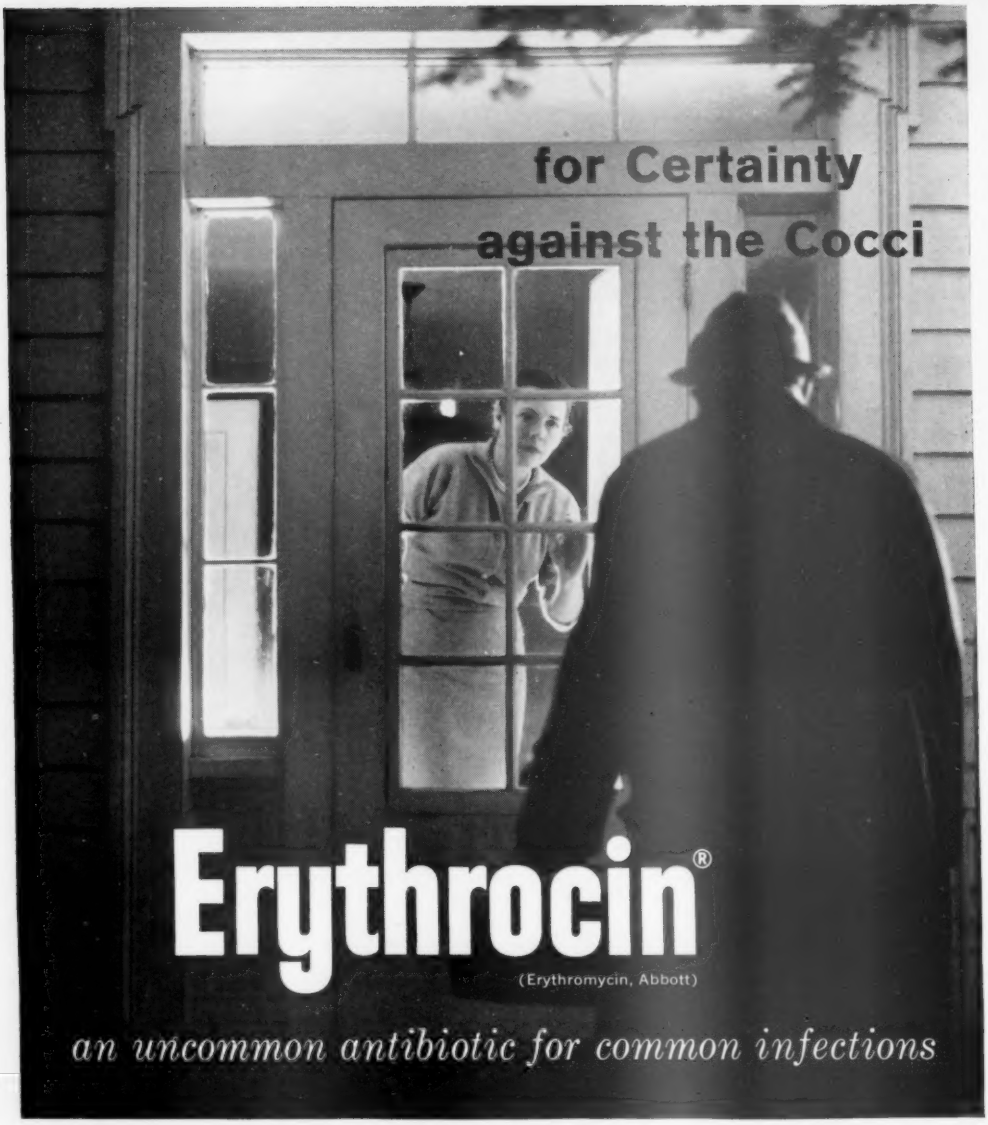
John D. Leidholt, M.D.

Physical Diagnosis: By F. Dennette Adams, M.D. 14th edition. Baltimore, Williams & Wilkins Co., 1958. 926 p. Price: $20.00.

The last previous edition of this notable work appeared in 1942. The first edition by a different author, the famed Richard C. Cabot, came out in 1900. Under Dr. Cabot's authorship, "Physical Diagnosis" was the standard textbook in the field from the beginning. It has continued as one of the best, under Dr. Adams.

Any physician who has a problem in methods of diagnosis, whether in history-taking, physical diagnosis as such, or special examinations, like the technical methods of joint examinations in arthritis, examination of the skin, the neurological examination and the psychiatric examination, will find an answer in the book. Even more technical areas of diagnosis including electrocardiographic interpretation and x-ray evaluation are given. Clinical laboratory methods are not included. Many of the early textbooks on physical diagnosis did include these procedures which soon became so extensive as to make a separate book mandatory. "Physical Diagnosis" is a reference book for the medical student, but an active textbook for the physician. The general practitioner, the internist,

continued on page 131



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The book corner cont. from page 128

as well as other specialists should have this book in his own working library. A recently developed technic[1] for the detection of small amounts of ascites was undoubtedly omitted because it was published only a few months ago. The procedure is a brilliant adaptation of the methods of percussion and auscultation.

H. Dumont Clark, M.D.

"The Psychology of Medical Practice: By Marc Hollender, M.D. Philadelphia, W. B. Saunders Co., 1958. 276 p. Price: $6.50.

Medical education is often charged with neglecting the art of the profession in training the student. Indeed upon completing graduate studies, the young doctor may soon realize that he is far from the finished product he would have himself be. Time and experience remain necessary to bring maturation, but knowledge and application of the principles stated in this book will speed the process.

The author is a professor of psychiatry and there are important contributions by an internist, an obstetrician and a pediatrician. Common specific problems arising in the specialties of these men plus those in general surgery are presented and their psychological considerations discussed. Throughout the work, the need for appreciation of the whole patient including his environment and his background is stressed. And so, for example, no fixed rule can ever be laid down as to whether or not the cancer patient "should be told," for one cancer patient is totally different from the next. The text reads easily and will be of profit particularly to the budding practitioner.

J. Philip Clarke, M.D.

[1]Lawson, John D., and Weissbein, Arthur S.: The puddle sign—an aid in the diagnosis of minimal ascites. New England Jour. of Med., 260:652-654, March 26, 1959.

Diseases of the Colon and Anorectum: Edited by Robert Turell, M.D. Philadelphia, W. B. Saunders Co., 1959. 2 vols. Price: $35.00.

This is a two-volume encyclopedia of the function and diseases of the colon and anorectum. It is very comprehensive and lengthy and certainly of greater value as a reference than as a textbook. It will be of most help to the general surgeon who performs anorectal surgery, and to proctologists.

There is a most interesting chapter on Pediatric Proctology which has long been lacking in textbooks of the colon and anorectum.

Thomas F. Jacques, M.D.

Now or Never, the Promise of the Middle Years: By Smiley Blanton, M.D., with Arthur Gordon. Englewood Cliffs, N. J., Prentice-Hall, Inc., 1959. 273 p. Price: $4.95.

This work is designed for laymen beset by the emotional problems of middle age. Dr. Blanton, a

"Well I don't think much of your bedside manner!"

distinguished psychiatrist and writer, has been active in the Religio-psychiatric Movement. Through the strange workings of fate, a neurologist noted for his resistance to psychiatric propaganda has been asked to make a few comments. The Freudian psychology is liberally mixed with practical common sense. Dr. Blanton freely admits that oversimplification is unavoidable in a work of this sort. He also concedes that psychiatrists cannot solve *all* human problems. The adjective, *many*, would seem more appropriate. The physiologic aspects of the alcoholic problem he dismisses rather airily. The book is well written and can be read with profit by intelligent persons.

Luman E. Daniels

Electrocardiography: By Michael Bernreiter, M.D., F.A.C.P. Philadelphia, J. B. Lippincott Co., 1958. 134 p. Price: $5.00.

This handbook is an excellent summary of the type of course in electrocardiography presented at most medical centers by practicing cardiographers. Without verbiage it manages to present an orderly basis for the modern, physiological interpretation of electrocardiograms. It is uncomplicated and entirely practical and should provide the medical student, house officer or other novice in the field a means of self-teaching and ready reference which makes it invaluable. I wish that such a work were available when I was a student and recommend it heartily to all non-cardiologists.

M. A. F.

Fracture Surgery; A Textbook of Common Fractures: By Henry Milch, M.D., F.A.C.S., and Robert Austin Milch, M.D. N. Y., Hoeber-Harper, 1959. 470 p. Price: $17.50.

In the preface of this book the authors state, "The present work has been prepared in an attempt to bridge the gap between the small handbook of fracture management and the encyclopedic volume encompassing material primarily of interest to the specialist." This they have accomplished admirably, and for one wanting a book which concisely gives a sound basis for treating a fracture he will find it in this book.

The material in the book is presented in four sections—the first deals with such subjects as emergency care, compound fractures, reduction of fractures, plaster of paris technic, and the healing of fractures. The remaining sections discuss fractures on a regional basis.

This text is particularly suitable for the general practitioner who wants to have a more detailed knowledge of fracture treatment, and also the resident on trauma will find this book a useful guide until he has gained more experience in the management of fractures.

Robert D. Anderson, Col., MC.
(Chief, Orthopedic Service,
Fitzsimons)

Trauma: By Harrison L. McLaughlin, M.D. Philadelphia, W. B. Saunders, 1959. 784 p. Price: $18.00.

I enjoyed reviewing this handsomely bound and well-compiled book, edited by Harrison McLaughlin. As Dr. McLaughlin stated in the preface, it is no easy task to prepare a monograph on

trauma. I feel that he has done a commendable job. Although the main part of the volume concerns itself with trauma to the extremities, trauma to the head, chest and abdomen are also included in a brief but fundamental fashion. The free use of well-recognized authorities as contributors, especially to the non-extremity portions of the anatomy, proved fruitful. In keeping with the fundamental nature of the work, the bibliography has been kept to a minimum.

The volume consists of 25 chapters, the first five of which are concerned with fundamental concepts concerning body response to various types of trauma and their treatment in the light of our present knowledge of pathologic physiology. Although I found this section to be of interest, it offered little that was new. The next 16 chapters are devoted to specific trauma involving the extremities and appendicular skeleton. It is compiled on a regional basis and each chapter is prefaced with a short descriptive and illustrative section on the anatomy. This I feel enhances the monograph. In general, the common fractures are well covered with respect to anatomy, mechanism of injury and treatment.

The section on fractures about the wrist is good, and should provide a solid therapeutic foundation for the uninitiated. I was surprised that radial styloidectomy is not mentioned in the therapy of non-unions of the carpal scaphoid. I feel that he is overly operatively inclined in the therapy of forearm fractures. The use of plates in forearm fractures is advocated and I feel that this has been essentially replaced via intramedulary devices. The sections on trauma to the shoulder and ankle are good, and offer a great deal. I cannot say the same about the sections on trauma to the femur and tibia. They are somewhat weak, and leave much to be desired as to mechanism of injury, treatment, and pitfalls in their treatment. Over-enthusiasm is also shown in the treatment of compression fractures of the vertebral bodies. The remaining four chapters concern visceral trauma, and as previously mentioned, are brief and presented in a fundamental fashion. This is an attractive, readable, well-illustrated book, written primarily for interns, residents and general practitioners.

Emil J. Massa, M.D.

Surgery of the Foot: By Henri L. DuVries, M.D. St. Louis, C. V. Mosby Co., 1959. 494 p. Price: $12.50.

Dr. Henry L. DuVries, the author of this reference book on the foot, had his early training in chiropody. He subsequently earned his Doctor of Medicine and has devoted these past 30 years to the diseases, deformities and injuries of the foot.

The text consists of 18 chapters starting with the anatomy and examination of the foot and including the pathological conditions involving all integuments of the foot from fascial herniae to congenital absence of the tibial sesamoid. Separate chapters are also devoted to fractures, tumors, congenital anomalies and amputations.

The book is well illustrated with over 400 photographs, roentgenograms, and drawings of surgical procedures. The subject cross-indexing and author index make for easy reference.

Unfortunately, Dr. DuVries' book suffers by comparison with Dr. Sterling Brunnell's classic on "Surgery of the Hand." There are numerous inaccuracies such as interchanging the terms "hammertoe" and "clawtoe" (p. 347) and "osteoma" and "osteoid osteoma" (p. 135) and stating that the entire action of inversion and eversion (of the foot) takes place by the movement of the talus in the ankle mortise (p. 51)! In other sections, he disregards basic orthopedic principles.

On the other hand, due largely to his chiropody training, his chapters on "Disorders of the Skin" and "Diseases and Deformities of the Toenails" are excellent and would bear study by all orthopedists as well as surgeons and generalists.

In summary, this is the best reference book available on foot surgery.

William H. Keener, M.D.

Cold Injury—Ground Type, in World War II: By Colonel Tom F. Whayne, MC, USA (Ret.), and Michael E. DeBakey, M.D. (Medical Department of United States Army in World War II). Washington, Govt. Printing Office, 1958. 570 p. Price: $6.75.

The perennial difficulty of the Medical Depart-

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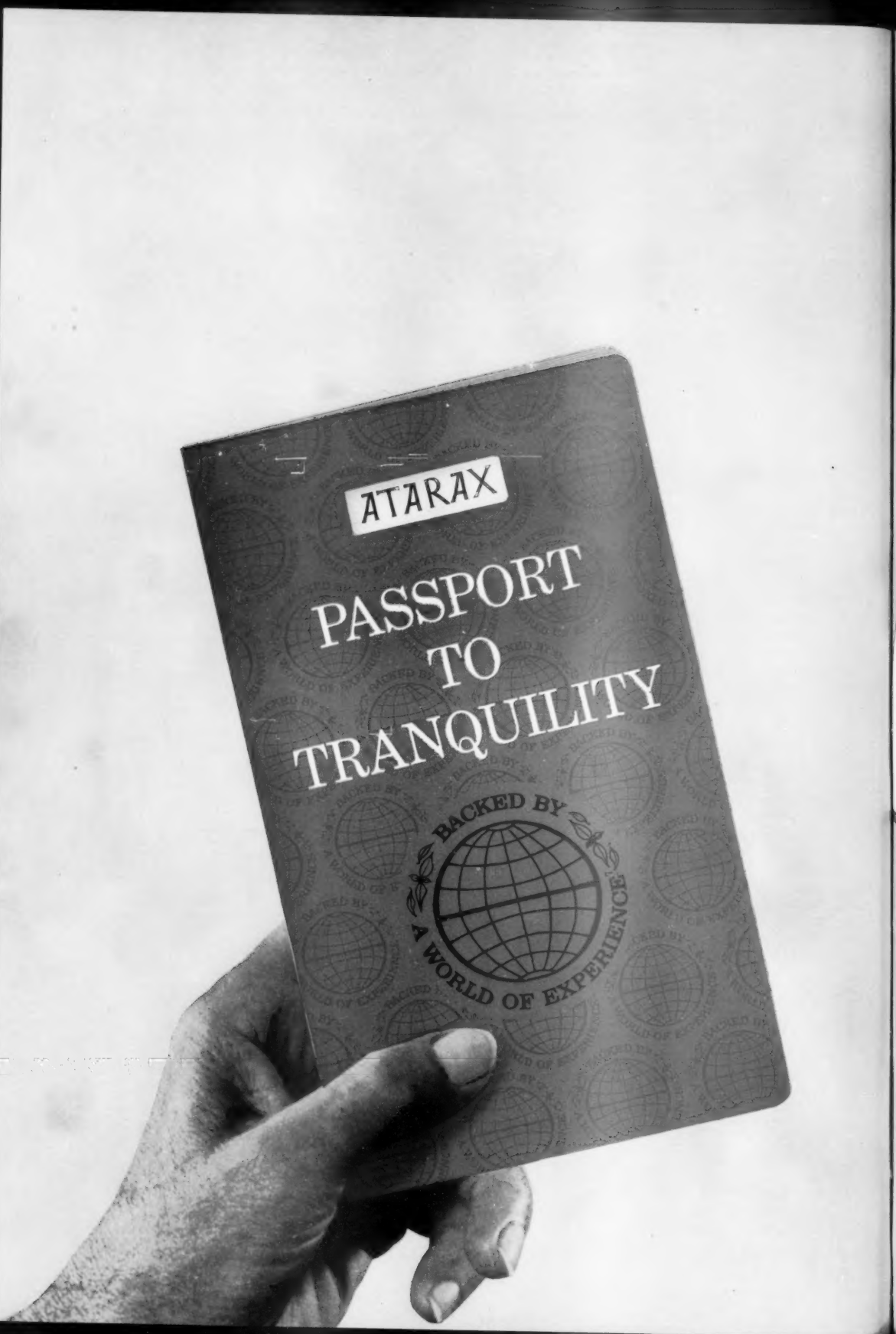
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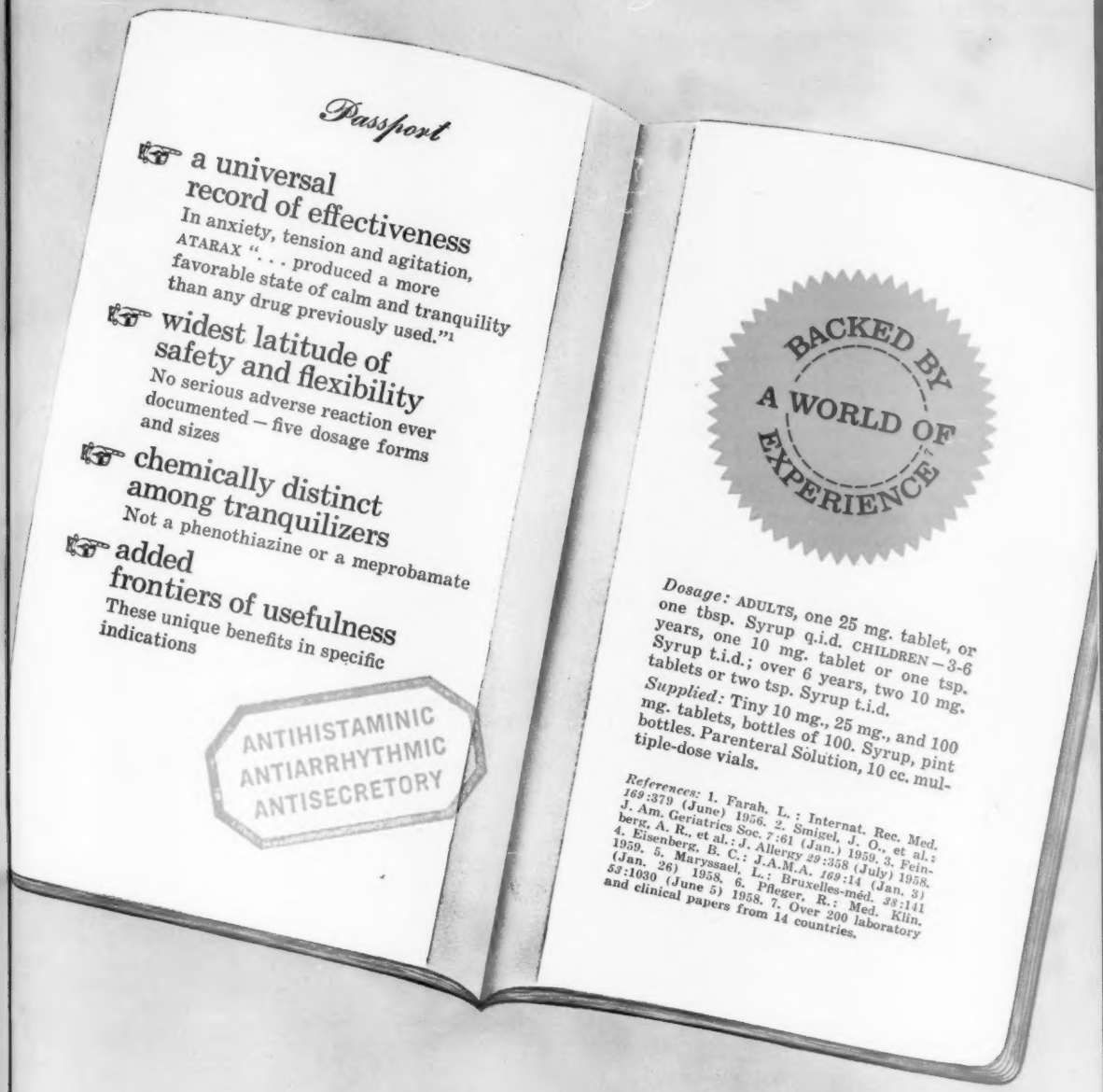

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Science for the World's Well-Being

ment of the United States Army in impressing command that much of the responsibility for maintaining fighting strength rests with them, the command, is again graphically presented. This exhaustive volume on the history of Cold Injury, Ground Type, in World War II presents in tremendous detail all of the aspects of cold injury including trench foot, frost bite, immersion foot, and the more minor traumatic cold injuries.

From the historical background presented, it seems incomprehensible that both the Medical Department and the remainder of the United States Army was as ill-prepared as it was to face the cold during World War II. The warning presented by the Aleutian campaign was not taken by the Army and subsequent campaigns in the African-Mediterranean theatre, the Western Front and in the Far East amply demonstrated the lack of command efforts and assumption of responsibilities in the prevention of cold injury.

The etiology, epidemiology and treatment of cold injury, as well as the pathology, are treated exhaustively in this interesting and vitally important book. This example of the importance of cold injury to a fighting force is of tremendous magnitude. "On the Western Front, the numerical loss from cold injury amounted to about three divisions. In terms of military effectiveness, the loss was nearly 12 divisions, since 90 per cent of the casualties occurred in combat riflemen, who made up about one-quarter of each division."

It is hoped that the important data found in this important volume will be digested and trans-

"Is that really the latest style, or are you keeping something from me?"

lated into action in the event of another war. The volume can be highly recommended for interesting reading as the narrative style employed in parts of the book enables one to relive some of the action that took place during World War II. It is a tremendous contribution to the heretofore poorly understood results of cold upon the human extremities.

D. K. Perkin, M.D.

The Southwestern Surgical Congress Essay Contest

The Southwestern Surgical Congress announces its Second Annual Essay Contest. The contest is open to interns, residents and M.D.'s in active training in general surgery or the surgical specialties, who have been in private practice no more than three years beyond completion of resident, intern and postgraduate training. Eligibility is further restricted to those individuals who are within the geographical confines of the Southwestern Surgical Congress.

The subject material for the competitive essays shall be either pure investigative or scientific research, or clinical research and investigation, which shall consist wholly or largely of the essayist's contributions. The work is intended to encourage original study and investigation on the part of the essayist himself.

The first prize will be $300.00, second prize $200.00, and third prize $100.00. The essayists whose papers are selected to be read will be the invited guests of the Southwestern Surgical Congress to their Twelfth Annual Meeting in Las Vegas, Nevada, March 28, 29, 30, 31, 1960, this to include the essayists' wives. This includes lodging, meals and the social functions of the organization, but does not provide transportation to and from the meeting.

Interested persons please contact John A. Growdon, M.D., 1324 Professional Building, Kansas City, Missouri.

Cardiac-In-Industry Conference

A one-day Cardiac-In-Industry Conference will be conducted on Friday, September 18, 1959, from 9:00 a.m. to 5:00 p.m. at the Brown Palace Hotel in Denver. The conference is supported by the Colorado Heart Association. The medical profession, management, labor, vocational rehabilitation and employment specialists will participate. There will be no registration fee. Principal speaker will be Donal L. Sparkman, M.D., Seattle, Washington, Chairman of the Rehabilitation Center of the American Hospital Association. For further information contact the Colorado Heart Association, 1636 Logan, Denver 3, Colorado, AC. 2-7888.

TMA Public Relations Conference features outstanding speakers and panel session

The Fifth Annual Public Relations Conference of the Texas Medical Association will be held Saturday, September 26, 1959, at the Association's Headquarters Building in Austin. The conference will feature guest speakers who are experts in various fields of public relations, an informative panel session on physician-press relations, and an evening of hospitality and football (University of Texas and the University of Maryland).

Guest speakers will include Chester Lauck, "Lum" of "Lum and Abner," Houston; Nelson J. Young, Detroit; Donald Stubbs, M.D., Washington; Frederick C. Swartz, M.D., Lansing; and Louis Throgmorton, Dallas.

Interstate Postgraduate Medical Association's 44th Scientific Assembly

A fine teaching program, sponsored by the Interstate Postgraduate Medical Association, will be held November 2-5, 1959, at the Palmer House in Chicago. An exceptionally interesting program has been planned, featuring guest speakers from all over the United States. Many informative papers and panel discussions covering a wide field of specialties will be presented. In addition to these, breakfast conferences and teaching programs have been planned. The teaching programs will be held during recess periods and will consist

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of lectures on Ob-Gyn, Dermatology, and Trauma. There is entertainment for the ladies, and the usual banquet will be held. The registration fee for the assembly is $10.00. For more detailed information, contact Interstate Postgraduate Medical Association, Box 1109, Madison 1, Wisconsin.

Postgraduate Course on Cardiopulmonary Diseases

National Jewish Hospital, Denver. Co-sponsored by American College of Chest Physicians, Colorado Chapter; Colorado Heart Study Club; Fitzsimons Army Hospital; National Jewish Hospital; University of Colorado School of Medicine.

Friday, October 30, 1959

Cardiopulmonary Effects of Air Pollution and Tobacco Smoke—Roger S. Mitchell, M.D., Moderator; Richard Prindle, M.D.; Hurley Motley, M.D.; Gardner Middlebrook, M.D.; Richard Reece, M.D.

Dyspnea—Murray Hoffman, M.D., Moderator; George C. Griffith, M.D.; Solbert Permutt, M.D.; Samuel Bukantz, M.D.

6:30 p.m. Dinner Meeting — Colorado Heart Study Club, University Club. George C. Griffith, M.D., guest speaker.

Saturday, October 31, 1959

Fitzsimons Army Hospital—Bushnell Auditorium. Clinical session with case presentations. Col. James Wier, M.C., Moderator.

Guest speakers—George C. Griffith, M.D., Los Angeles; Hurley L. Motley, M.D., Los Angeles; Richard A. Prindle, M.D., Washington, D. C.

Patterns of Disease*

At one time more than 99 per cent of the cases of Rocky Mountain spotted fever occurred in the Mountain and Pacific states. But now the incidence of the disease in these areas has declined markedly, and the ailment is increasingly prevalent in the South Atlantic states. It has been known to occur in Long Island, New York, since 1912.

* * *

Contrary to popular belief, undulant fever (brucellosis) is much more than a rural problem. A total of 41 per cent of cases reported in one comprehensive study was in urban areas.

* * *

The turkey is named a "new health hazard" in connection with the disease parrot fever (pittacosis). Parrots and parakeets are probably the most common source of this disease. Infections have also been traced to pigeons, ducks, chickens, canaries, sea gulls, egrets and "road runners."

*Information received from Patterns of Disease, publication of Parke, Davis & Company.